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“Financial Statement Analysis of Construction Companies and
Evaluation of Financial Position and Performance”

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Patras, Greece, June 2026

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Abstract

In general, the purpose of this postgraduate dissertation is to analyze the financial performance and sustainability of the leading listed Greek construction companies, during the time period 2015 – 2024. More specifically, the study extends beyond the conventional financial statement analysis, intending to investigate whether any non-obvious correlations between financial statement items, financial ratios and the outcomes of financial distress models exist. The main objective is to identify any latent interdependencies, usually not captured in the context of standard analysis and interpretation of financial ratios, due to them being primarily focused on measuring profitability, liquidity and leverage.

The research sample consists of the major listed construction firms with continuous activity and financial presence during the examined time period, namely ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε., ΕΚΤΕΡ Α.Ε., Ο ΚΕΚΡΟΨ Α.Ε., ΒΙΟΤΕΡ Α.Ε., ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε., ΙΝΤΡΑΚΑΤ Α.Ε., ΓΕΚ ΤΕΡΝΑ Α.Ε. and J&P-ΑΒΑΞ Α.Ε.. The analysis is based on the widely available data and information published in financial statements and the resulting key financial ratios (liquidity, profitability, activity and leverage indicators).

From a methodological point of view, this dissertation combines conventional financial ratio analysis with established financial distress prediction models, namely the Altman Z-Score, the Zmijewski X-Score, the Springate S-Score and the Ohlson O-Score (also taking into account the Ohlson P-Probability). The aim of this research framework is to provide a dual assessment, examining both the reported financial performance and the potential bankruptcy risk, through the use of both accounting and probabilistic approaches.

The research findings confirm the high level of heterogeneity and fragmentation of the sector, indicating that the firm-level outcomes significantly diverge from the aggregate industry trends. The reported sectoral averages are proved to be weak proxies for individual firm performance, with clear stratification between large conglomerates such as ΓΕΚ ΤΕΡΝΑ Α.Ε., J&P ΑΒΑΞ Α.Ε. and ΙΝΤΡΑΚΑΤ Α.Ε. and smaller listed firms. The established financial distress models generally fail to produce predictions aligned with the reported financial performance, leading to considerations of potential systematic misclassification in several cases. This observation introduces concerns regarding the external validity of these models when being applied on the Greek construction sector. Despite the fact that the performed correlation analysis reveals strong associations between liquidity, leverage and profitability ratios, these linkages are proved to be more or less

expected due to mechanical variable overlaps instead than revealing actual independent economic effects. The distress prediction scores are proved to be strongly linked to their corresponding underlying components, thus confirming their internal consistency.

The summarized conclusion of this dissertation is that, while the established financial ratios and distress prediction models remain useful, their predictive reliability is proved to be highly dependent on the market financial context. Furthermore, their interpretation within the Greek construction market should be realized with high caution due to the observed fragmentation and the high capital intensity of the sector.

Keywords

Financial statement analysis, Greek construction sector, financial ratios, financial distress prediction, leverage, liquidity, correlation analysis

Περίληψη

Σε γενικές γραμμές, ο σκοπός της παρούσας μεταπτυχιακής εργασίας είναι να αναλυθεί η οικονομική επίδοση και η βιωσιμότητα των κορυφαίων εισηγμένων ελληνικών κατασκευαστικών εταιρειών, κατά τη χρονική περίοδο 2015-2024. Πιο συγκεκριμένα, η εργασία εκτείνεται πέραν της συμβατικής ανάλυσης οικονομικών καταστάσεων, με στόχο να διερευνηθεί εάν υφίστανται μη προφανείς συσχετίσεις μεταξύ στοιχείων των οικονομικών καταστάσεων, χρηματοοικονομικών δεικτών και των αποτελεσμάτων από τη χρήση μοντέλων πρόβλεψης οικονομικής δυσχέρειας. Ο κύριος στόχος είναι ο εντοπισμός τυχόν λανθανουσών αλληλεξαρτήσεων, που συνήθως δεν αποτυπώνονται κατά την κλασική ανάλυση και ερμηνεία οικονομικών δεικτών, καθώς αυτές επικεντρώνονται αποκλειστικά στην μέτρηση κερδοφορίας, ρευστότητας και μόχλευσης.

Το δείγμα της έρευνας αποτελείται από τις κυριότερες εισηγμένες κατασκευαστικές εταιρείες με συνεχή δραστηριότητα και οικονομική παρουσία κατά την εξεταζόμενη χρονική περίοδο, ήτοι τις ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε., ΕΚΤΕΡ Α.Ε., Ο ΚΕΚΡΟΨ Α.Ε., ΒΙΟΤΕΡ Α.Ε., ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε., ΙΝΤΡΑΚΑΤ Α.Ε., ΓΕΚ ΤΕΡΝΑ Α.Ε. and J&P-ΑΒΑΞ Α.Ε.. Η ανάλυση βασίζεται στα ευρέως διαθέσιμα δεδομένα και πληροφορίες που είναι δημοσιευμένα στις χρηματοοικονομικές καταστάσεις και στους κύριους προκύπτοντες χρηματοοικονομικούς δείκτες (δείκτες ρευστότητας, κερδοφορίας, δραστηριότητας και μόχλευσης).

Από πλευράς μεθοδολογίας, η μεταπτυχιακή εργασία συνδυάζει συμβατική ανάλυση χρηματοοικονομικών δεικτών με καθιερωμένα μοντέλα πρόβλεψης οικονομικής δυσχέρειας, ήτοι το Altman Z-Score, το Zmijewski X-Score, το Springate S-Score και το Ohlson O-Score (επίσης λαμβάνοντας υπόψη την Ohlson P-Probability). Αυτό το ολοκληρωμένο πλαίσιο σκοπεύει στην παροχή διπλής αξιολόγησης της χρηματοοικονομικής επίδοσης και του ρίσκου χρεωκοπίας χρησιμοποιώντας όχι μόνο λογιστικών όσο και πιθανοτικών προσεγγίσεων.

Τα ευρήματα της έρευνας επιβεβαιώνουν το υψηλό επίπεδο ανομοιογένειας και κατακερματισμού του τομέα, που οδηγούν σε παρατήρηση ότι αποτελέσματα σε επίπεδο εταιρείας αποκλίνουν σημαντικά από τις συνολικές τάσεις του κλάδου. Οι δημοσιευμένοι μέσοι όροι του τομέα αποδεικνύονται ασθενή αντιπροσωπευτικά μέτρα της ατομικής απόδοσης μιας εταιρείας, με ξεκάθαρη διαστρωμάτωση μεταξύ μεγάλων ομίλων όπως η ΓΕΚ ΤΕΡΝΑ Α.Ε., η J&P ΑΒΑΞ Α.Ε. and η ΙΝΤΡΑΚΑΤ Α.Ε και μικρότερων εισηγμένων

εταιρειών. Τα καθιερωμένα μοντέλα οικονομικής δυσχέρειας γενικά αποτυγχάνουν να παράγουν προβλέψεις σε συμφωνία με τη δημοσιευμένη οικονομική επίδοση, δημιουργώντας ανησυχίες περί πιθανής συστηματικά εσφαλμένης ταξινόμησης πολλών περιπτώσεων. Αυτή η παρατήρηση εισάγει αμφιβολίες εξωτερικής εγκυρότητας των μοντέλων, όταν αυτά εφαρμόζονται στον ελληνικό κατασκευαστικό κλάδο. Παρά το γεγονός ότι η πραγματοποιηθείσα ανάλυση συσχετίσεων αναδεικνύει ισχυρές σχέσεις μεταξύ δεικτών ρευστότητας, μόχλευσης και κερδοφορίας, αυτές οι συνδέσεις αποδεικνύονται λίγο έως πολύ αναμενόμενες εξαιτίας μηχανικών επικαλύψεων μεταβλητών αντί να καταδεικνύουν πραγματικές ανεξάρτητες οικονομικές σχέσεις. Οι βαθμολογίες πρόβλεψης δυσχέρειας αποδεικνύονται ισχυρά συνδεδεμένες με τις αντίστοιχες υποκείμενες συνιστώσες τους, επιβεβαιώνοντας την εσωτερική τους συνοχή. Η μεταπτυχιακή εργασία καταλήγει στο συνοπτικό συμπέρασμα ότι, ενώ οι χρηματοοικονομικοί δείκτες και τα μοντέλα πρόβλεψης οικονομικής δυσχέρειας διατηρούν τη χρησιμότητά τους, η πραγματική προβλεπτική αξιοπιστία τους εξαρτάται έντονα από το οικονομικό πλαίσιο και η ερμηνεία τους απαιτεί μεγάλη προσοχή εντός του δομικού κατακερματισμού του συγκεκριμένου κεφαλαιουχικά εντατικού οικονομικού τομέα.

Λέξεις – Κλειδιά

Ανάλυση Χρηματοοικονομικών καταστάσεων, ελληνικός κατασκευαστικός κλάδος, χρηματοοικονομικοί δείκτες, πρόβλεψη οικονομικής δυσχέρειας, μόχλευση, ρευστότητα, ανάλυση συσχετίσεων

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List of Abbreviations & Acronyms

ATHEX	Athens Stock Exchange
COGS	Cost Of Goods Sold
COVID-19	Coronavirus Disease 2019
DCF	Discounted Cash Flow
DPS	Dividend per Share
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EPS	Earnings Per Share
ESG	Environmental, Social and Governance
EU	European Union
GDP	Gross Domestic Product
IFRS	International Financial Reporting Standards
P/E	Price-to-Earnings ratio
PD	Probability of Default
PPP	Public – Private Partnership
ROA	Return On Assets
ROE	Return On Equity
ROI	Return On Investment
SMEs	Small and Medium-sized Enterprises
SPV	Special Purpose Vehicle
WACC	Weighted Average Cost of Capital
A.E.	Ανώνυμος Εταιρεία
A.T.E.	Ανώνυμος Τεχνική Εταιρεία

1. INTRODUCTION

The main topic of this dissertation is the financial analysis of the leading Greek construction companies listed on the Athens Stock Exchange and an initial assessment of their financial position and performance. By extending the research beyond the conventional scope of financial analysis and presentation of the recorded performance – sustainability – prospects of these firms, this study intends to investigate the potential existence of any non-obvious correlations across the spectrum of the employed variables and the financial analysis and distress prediction outputs.

The identified research sample consists of the economically largest Greek listed construction companies that consistently exhibited financial activity during the examined time period 2015 – 2024. To be more specific, the analysis is based on data derived from the published financial statements of the following construction firms:

1. ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.
2. ΕΚΤΕΡ Α.Ε.
3. Ο ΚΕΚΡΟΨ Α.Ε.
4. ΒΙΟΤΕΡ Α.Ε.
5. ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.
6. ΙΝΤΡΑΚΑΤ Α.Ε.
7. ΓΕΚ ΤΕΡΝΑ Α.Ε.
8. J&P – ΑΒΑΞ Α.Ε.

For the purposes of the financial analysis, both primary data (extracted as-is from the published financial statements of the aforementioned companies) and secondary data (namely the selected liquidity, activity, profitability and viability ratios/indicators) were employed.

The data utilized were derived from the published financial statements covering the fiscal time period 2015 – 2024. The analysis does not intend to compare the examined companies either against the industry average or against each other. Instead, the primary objective is to investigate and substantiate any existing correlations between items reported in the financial statements and the resulting financial ratios, extending beyond the self-evident assumption

that an increase in profitability leads to improvements in the rest of the aspects that comprise the financial position of a company.

The dissertation is structured as follows:

1. **Chapter 1** constitutes the introductory section, providing a general overview of the research subject and the overall structure of the dissertation.
2. **Chapter 2** presents a brief yet comprehensive overview of the construction sector in Greece, placing particular emphasis on the progress throughout the under examination time period, as well as on the structural characteristics and sector-specific particularities. Furthermore, the companies that form the research sample are briefly introduced and described.
3. **Chapter 3** presents the theoretical framework of financial statement analysis and the principal financial ratios that will be used for the follow-on assessment. Additionally, the indicators employed when evaluating the viability and short-term sustainability of businesses are also presented in this chapter.
4. **Chapter 4** describes the methodology adopted for the collection, processing and analysis of the acquired data within the context of this dissertation. The underlying rationale for the selection of the variables is thoroughly substantiated, while a presentation of the initial findings of the analysis is performed.
5. **Chapter 5** both addresses and summarizes the main conclusions derived from the data processing and research, while also identifying potential topics and questions for further academic research.
6. Finally, the dissertation concludes with a comprehensive presentation of the utilized bibliographical sources, whereas the appendices include the aggregate figures and analytical tables that were too vast to be presented at the corresponding point of the dissertation, as well as the research primary and secondary data.

The main aspiration for selecting this specific research topic has been to investigate and identify potential correlations and interdependencies, not usually assessed within the conventional framework of corporate financial statement analysis. Instead of limiting the analysis scope to the mere evaluation of standard financial ratios and indicators accompanied by the readily observable trends, this dissertation aims to explore potentially

less apparent associations between variables and results. This may provide a deeper insight into the operational efficiency, financial resilience and sustainability of not only the examined companies but also similar firms.

Through this analytical and deterministic approach, the objective of this dissertation is to contribute an additional interpretative perspective to the assessment of the current and prospective financial position of construction companies, based exclusively on widely available financial information. In this way, the dissertation aspires to enhance the explanatory value of financial analysis by identifying patterns and correlations that may not be immediately discernible through the conventionally used evaluative methods.

2. THE GREEK CONSTRUCTION SECTOR DURING THE PERIOD 2015 – 2024

2.1 Overview

Historically, the construction sector has constituted one of the principal pillars of economic development of the modern Greek state. From the post-war residential reconstruction period to the rapid urbanization observed during the 1960s and the 1970s, the construction industry in Greece has become intrinsically linked to economic growth and the elevation of living standards among the population. The expansion of construction activity in Greece reached its peak during the 1990s and the 2000s through the implementation of extensive urban infrastructure projects, many of which were co-financed by the EU. At the same time, the required preparations for the return of the Olympic Games to their country of origin in 2004 mobilized even more economic resources and accelerated investments in large-scale public works. This period of significant expansion of the Greek construction sector was characterized by the completion of major infrastructure and transportation projects, including the Attiki Odos motorway, the Egnatia Odos motorway, the Olympia Odos motorway and the Athens Metro railway system. These projects not only transformed the Greek transportation network but also contributed substantially to national economic activity, enhancing employment generation and modernizing the productive framework.

During the subsequent period of economic crisis, however, the Greek construction sector experienced a severe financial contraction with building activity declining to levels that even approached collapse. The adverse macroeconomic environment, characterized by increased debt costs and greatly restricted access to bank financing, combined with the governmental implementation of strict fiscal adjustment policies (reduction of public investment expenditure, limited financing of public infrastructure projects, etc.), generated significant pressure upon the whole sector. As a consequence, numerous construction companies, while recording substantial decline of their domestic activity, either sought investment opportunities and operational expansion abroad or even ceased operations altogether.

Following the gradual stabilization of the Greek economy and the onset of economic recovery, the national construction activity began to also recover through the tendering and implementation of major infrastructure projects such as restoration of motorway networks, construction of energy production infrastructure and large-scale urban regeneration and

development projects. This renewed investment activity contributed to the revitalization of the construction sector and reaffirmed the great importance of construction activity within the general framework of the Greek economy (ELSTAT, 2025). A most representative example of the latter category of construction works is the arguably largest European urban regeneration project, “The Ellinikon” project, taking place in the municipality of Elliniko – Argyroupoli in Athens (The Ellinikon official website).

Beyond the awarding and execution of large-scale public works in the fields of urban and transportation infrastructure, the private construction activity (residence construction and renovation) constitutes a second decisive driver that shapes the evolution of the sector. The enhanced housing credit approvals and the increased banking competition of the previous years – including reduced interest rates, expanded access to credit and the introduction of new banking products – contributed greatly to a substantial expansion of mortgage lending. These developments, in addition to generating significant financial inflows within the domestic banking system, played a central role in stimulating the aggregate housing demand. A comparable policy initiative has been implemented in recent years through the state-subsidized mortgage schemes “SPITI MOU I” and “SPITI MOU II”, which aim to partially offset the borrowing costs and thus further stimulate the residential demand and construction – renovation activity, since the eligibility extends mainly to the existing building stock.

The most recent legislative framework that restructures the implementation of public infrastructure projects through Public – Private Partnerships (PPPs) generated further optimistic prospects. This institutional mechanism has provided renewed impetus to domestic construction activity and broader entrepreneurship, with significant anticipated positive macroeconomic effects on the sector.

The economical importance of the Greek construction sector is evidenced by its recorded macroeconomic impact. In 2024 the direct contribution of the construction activity to GDP has been assessed at approximately €4.574 billion (1,93%). The construction activity also plays a substantial role in the generation of public revenues, including both tax receipts (mainly through construction materials trade) and social security contributions (through the employee insurance contribution). In terms of employment, the total increased contribution of the construction sector has been estimated at approximately 210,000 (4.1% of total

domestic employment) in 2024 (ELSTAT, 2025), as depicted in the following Figures 2-1 and 2-2.

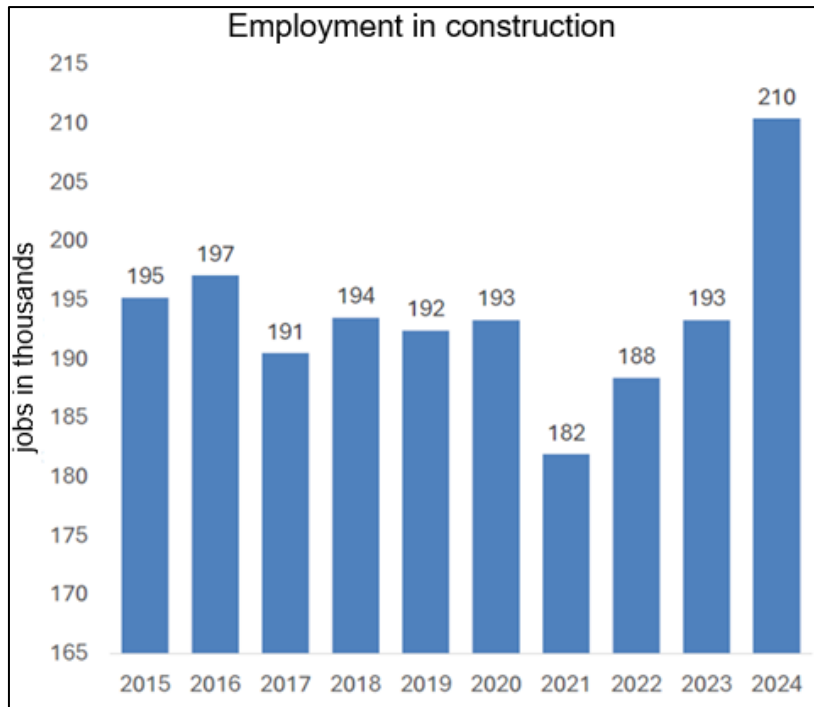


Figure 2-1: Progress of Employment in the Greek Construction Sector (IOBE, 2025)



Figure 2-2: Employment in the Greek Construction Sector as a Percentage of Total Domestic Employment (IOBE, 2025)

2.2 Progression of the Greek Construction Sector over the Time Period 2015 – 2024

The progression of the Greek construction sector over the examined time period 2015 – 2024 has been characterized by pronounced volatility, reflecting both the broader macroeconomic environment and the sector-specific dynamics associated with the real estate market, the investment activity and the general financial conditions. The examined time period may be conceptualized as a structural transition from the prolonged recession and capital underinvestment towards a phase of accelerated recovery and activity expansion, albeit accompanied by persistent structural inefficiencies and constraints (Bank of Greece, 2024; IOBE, 2025).

During the initial sub-period (2015 – 2017) the sector operated at depressed levels of activity as a direct consequence of the previous protracted country debt crisis and the associated macroeconomic adjustments. The available evidence indicates that the residential investment as a proportion of GDP declined to levels below 2%, underscoring the magnitude of disinvestment, especially compared to the pre-crisis levels exceeding 10% (ELSTAT, 2019). Despite the adverse conditions, the time period 2015 – 2017 marked the onset of stabilization, primarily attributable to the gradual macroeconomic normalization and the partial restoration of investors’ confidence (OECD, 2018).

The subsequent phase (2017 – 2019) demonstrated further gradual but uneven recovery of the sector. The improvement of macroeconomic conditions, the expansion of tourist activity and the strengthening of real estate demand – particularly in urban centers and high-value tourist regions – contributed to the reactivation of investment in construction. Additionally, the emergence and rapid expansion of various short-term rental platforms, notably Airbnb, altered the structure of the demand for residential real estate, thus enhancing the investment appeal and stimulating both renovation and construction activity (Bank of Greece, 2019). Nevertheless, the overall investment intensity remained below the EU average, indicating that the observed recovery process retained a fragile and inconsistent nature (Eurostat, 2021).

Finally, the time period 2020 – 2024 constitutes a distinct expansionary phase during which the Greek construction sector recorded a remarkable acceleration of growth. Although the outbreak of the COVID-19 pandemic introduced significant short-term disruptions to economic activity in general, the sector demonstrated notable resilience and a relatively

rapid rebound. A pivotal role was played by the operationalization of the European Recovery and Resilience Facility, which channeled substantial European resources into infrastructure development, energy transition projects and urban regeneration initiatives (European Commission, 2023). Concurrently, the observed increased inflows of foreign direct investment into the real estate market, combined with a sustained upward pressure on housing prices, further reinforced the demand for construction services (Bank of Greece, 2024).

The above-mentioned progression of the construction sector can be observed in the following Figure 2-3, which presents the annual value of construction works throughout the examined time period.

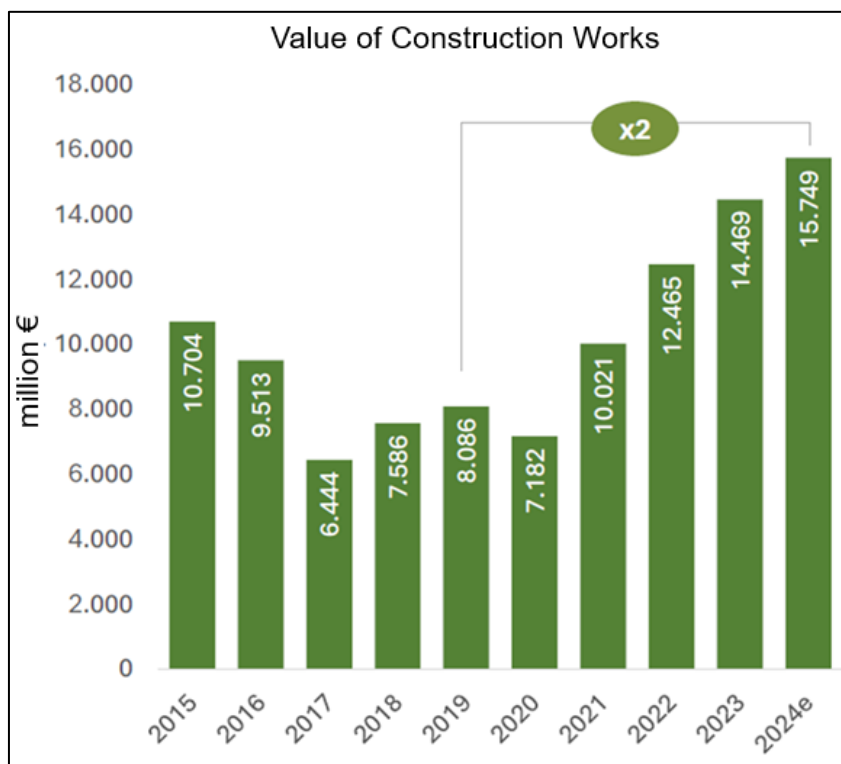


Figure 2-3: Annual Value of Construction Works (IOBE, 2025)

Despite the observed positive momentum, several structural constraints persist to this day. The escalating production costs, driven primarily by the inflation in energy and raw materials, have exerted a considerable downward pressure on the sector profitability and have contributed to significant delays in the execution and completion of projects (IOBE, 2024). Moreover, the construction sector continues to face a pronounced shortage of skilled

labor, a phenomenon largely attributable to the significant workforce outflows from the country during the economic crisis period (OECD, 2022). Important institutional inefficiencies, including administrative delays in permitting procedures and the persistent regulatory complexity of the spatial planning, continue to impede the timely implementation of investments on construction projects (European Commission, 2023).

In conclusion, the examined time period 2015 – 2024 was characterized by the structural reconfiguration of the Greek construction sector from deep contraction to renewed expansion. Accordingly, while it has re-emerged as a central component of the Greek economy, the sector continues to undergo a transitional adjustment towards a more resilient and structurally balanced growth paradigm.

2.3 Structural Characteristics and Sector-Specific Particularities of the Construction Sector in Greece

The Greek construction sector exhibits a number of structural particularities which differentiate it from not only other sectors of the domestic economy but also the corresponding sectors in other European countries. These characteristics are closely associated with the market structure, the institutional arrangements, the financial conditions, the nature of the demand and other historical and socio-economic factors that have shaped the long-term development of the sector (Bank of Greece, 2022; IOBE, 2023).

One of the most salient features of the Greek construction sector is the pronounced presence of small and very small enterprises, which constitutes a defining structural attribute. In contrast to other European economies, where high levels of market concentration and the dominance of large construction conglomerates are observed, the Greek construction market is characterized by fragmentation and limited capital concentration. According to data from the Hellenic Statistical Authority, the vast majority of firms in the Greek construction sector are classified as very small enterprises (employing up to 10 persons), a condition that significantly shapes the structure and functioning of the market (ELSTAT, 2021).

Consequently, the Greek construction sector is characterized by a low degree of capital concentration. In 2023, approximately 74,000 Greek enterprises operated in the national construction sector. The overwhelming majority of companies within the Greek construction sector (96.4% in 2023) are micro-enterprises (self-employed individuals or

firms employing up to 9 persons). However, these enterprises accounted for the 38% of the production value of the Greek construction sector. Only 14 large companies employ more than 250 employees, yet their contribution to the production value of the sector amounted only to 17%. Small and medium-sized enterprises (SMEs), meaning those employing between 10 and 249 persons, account for 3.6% of the total number of firms and generate the remaining 45% of the construction sector's production value (IOBE, 2025).

The predominance of small-sized enterprises introduces significant implications for the efficiency and competitiveness of the Greek construction sector. On the one hand, it enhances flexibility and responsiveness to local conditions and small-scale projects. On the other hand, it is deemed to limit economies of scale, to constrain investments in innovation and technology and to somewhat restrict access to external financing. Moreover, the high fragmentation of the productive base impedes the standardization of construction processes and the adoption of modern project management practices. This may be one of the main reasons leading to the observed lower productivity levels of the Greek construction sector as compared to the corresponding European average (Eurostat, 2022).

Another important characteristic of the Greek construction sector is the high dependency on private construction activity, realized mainly within the residential real estate market. Historically, owned housing has represented a primary investment asset of Greek households, thus reinforcing the significance of private residential construction in relation to large-scale infrastructure projects (Bank of Greece, 2021). However, this dependency renders the sector highly vulnerable to fluctuations in both housing demand and buyers' disposable income.

The sector also appears to be highly dependent on public funding and co-financed investment projects, as shown in Figure 2-4. Large-scale infrastructure projects (energy infrastructure, transportation networks, urban regeneration, etc.) in Greece tend to rely extensively on EU resources, such as the Structural Funds and the Recovery and Resilience Facility. While this dependence strengthens the investment activity during periods of increased EU inflows to the country, simultaneously it introduces a degree of cyclical volatility, since the construction ability becomes closely linked to the timing and absorption capacity of the corresponding EU programmes funds (European Commission, 2023).

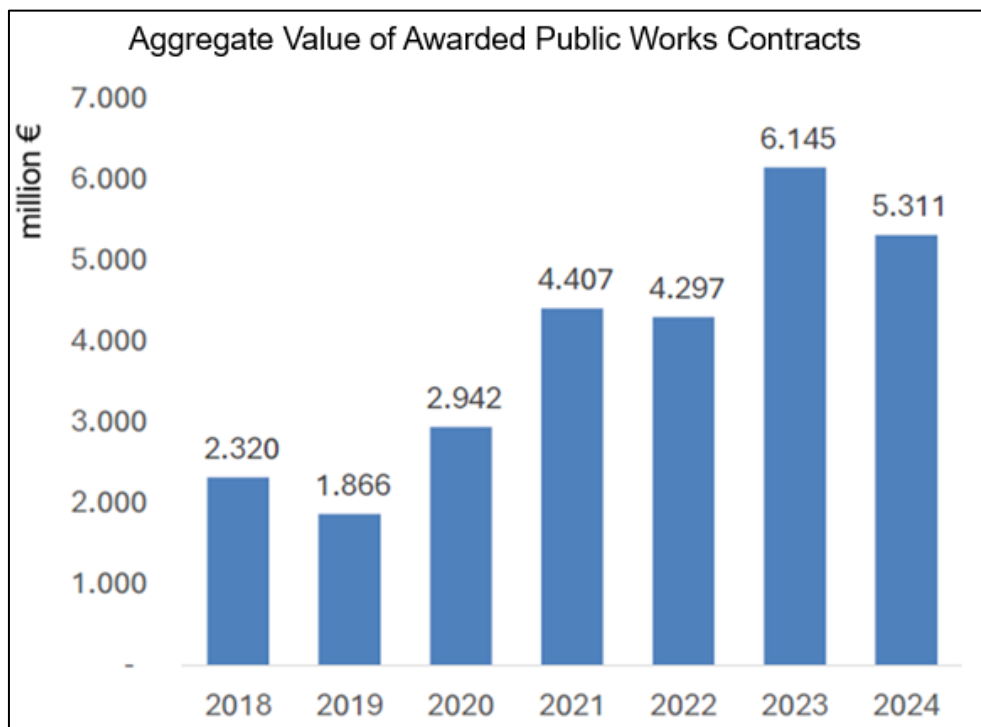


Figure 2-4: Aggregate Value of Awarded Public Works Contracts (IOBE,2025)

An additional defining feature of the Greek construction sector is its complex and frequently (unfortunately) evolving institutional and regulatory framework. Permitting procedures, urban planning regulations and spatial planning legislation are characterized not only by high complexity but also by frequent amendments and dynamic evolution. These inherent elements of the construction market context have been shown to introduce significant delays in the first stages of project implementation and increased administrative cost risks for construction firms undertaking the corresponding projects (OECD, 2020).

Special attention should also be given to the heightened sensitivity of the sector to fluctuations in energy costs and other developments in the international financial markets (that are imported in the domestic one). The construction activity is highly energy-intensive and heavily relies on procurement of materials (such as cement, steel, etc.) whose production prices are directly affected by the global energy price fluctuations. The energy crisis of 2021 – 2023 highlighted this specific vulnerability of the sector, as the crisis led to increases in construction costs and caused delays or even significant revisions in project implementation (European Commission, 2023; IOBE, 2023). At the same time, the changes in the international financial environment – such as increased interest rates and tighter credit

prerequisites imposed by banking institutes – have affected directly the financial capacity of both construction firms and property buyers/investors. During the recent years, it has been proven that the dependence on bank financing has rendered the sector particularly exposed to the national and international financial cycles (Bank of Greece, 2024).

Overall, the structural particularities of the Greek construction sector form a complex operating environment where the significant development potential coexists with the structural weaknesses. A comprehensive understanding of these characteristics has become an essential factor for the formulation of effective policies and strategic interventions that aim to enhance the long-term sustainability, resilience and competitiveness of the sector.

2.4 Overview of the Regulatory Framework Governing the Listing of Companies on the Athens Stock Exchange

The Greek construction sector, in the same way as the rest of the companies listed on the Athens Stock Exchange (ATHEX), have to operate within a strictly regulated capital market framework. This framework has been designed to ensure transparency, investor protection and the orderly functioning of this organized value market. Listing a company on the stock exchange is much more than a mere financing decision. It constitutes a structural corporate transition towards a regime that is characterized by enhanced accountability, upheld disclosure obligations and ongoing regulatory compliance.

The institutional framework that governs the admission of companies to the listing and the following trading of securities on the Athens Stock Exchange is primarily defined by the ATHEX Rulebook (Law 3371/2005) and the supervisory framework of the Hellenic Capital Market Commission. At the same time the national regulatory system has incorporated the Corresponding EU legislation, most notably the Directive 2014/65/EU, thereby establishing a harmonized capital market environment placing special emphasis on transparency, investor protection and effective supervisory oversight (ESMA, 2022; Hellenic Capital Market Commission, 2024).

The requirements for listing on the Athens Stock Exchange may vary depending on the specific market segment targeted, but can broadly be classified into three principal categories: legal and institutional, financial and qualitative.

2.4.1 Legal and Institutional Requirements

Every company seeking to be listed on the stock exchange is obligated to adopt the legal form of a public limited company (Société Anonyme), in accordance with the applicable Greek corporate legislation. This requirement is intrinsically linked to the company governance structure and the ongoing obligation to publicly disclose the corresponding information (be it financial or otherwise).

A key requirement is the actual preparation and approval of a prospectus, which must be authorized by the Hellenic Capital Market Commission. The prospectus has to provide comprehensive information regarding the company's financial position, business model, operational risks and the intended use of proceeds, thereby ensuring compliance with the principle of full, fair and timely disclosure to investors (Hellenic Capital Market Commission, 2024).

2.4.2 Financial Requirements

The financial requirements imposed for listing have been designed to ensure the financial adequacy and the expected long-term viability of the admitted companies. Indicatively, for a firm to be accepted in the regulated market of the Athens Stock Exchange, the following conditions are typically required to be met:

- The company must be able to exhibit a sufficient level of shareholder equity, which should exceed the minimum thresholds (depending on the targeted listing category) defined in the ATHEX rulebook.
- The company must be able to exhibit a track record of operating profitability or at least positive operating results (e.g. EBITDA) over a specified time period (typically defined as the last three fiscal years)
- The company must prepare the corresponding financial statements in accordance with the IFRS (International Financial Reporting Standards), which must also have been duly audited by certified independent auditors.

The aforementioned financial criteria aim to function as a robust screening mechanism to evaluate the financial stability and the ability of the company under evaluation to meet the requirements of the regulated stock market. The objective is to reduce the ever-existing investment risk and thus enhancing market confidence (Athens Exchange Group, 2023).

2.4.3 Qualitative Requirements

Beyond the determined financial criteria, significant emphasis is placed upon qualitative (non-deterministic) criteria related to the overall corporate quality and the long-term sustainability of the potential issuing entity (admitted enterprise). Inter alia, these qualitative requirements include:

- Whether the applied business model is characterized by clarity, coherence and sustainability
- The perceived effectiveness of the corporate governance framework, including the composition and functioning of the Board of Directors
- The experience and credibility of the management team
- The level of free float, that directly affects the liquidity and the share marketability
- The competitive positioning of the firm within the industry and its growth prospects

Summarizing, the actual listing framework of the Athens Stock Exchange is characterized by a multidimensional set of legal, financial and qualitative requirements, which complement each other and aim to safeguard the integrity of the capital market and to protect the potential investors. This comprehensive evaluation framework ensures up to a certain degree that only business entities with adequate financial foundations, institutional maturity and substantiated growth prospect may be admitted to the regulated capital exchange environment.

2.5 Selected Cases of Listed Greek Construction Companies

As already mentioned, the Greek construction sector is characterized by the limited number of listed companies, which among themselves differ substantially in terms of scale, financial strength, geographical scope and the nature of undertaken projects. The analysis of these firms facilitates a deeper understanding of the sector structure, which encompasses both large diversified groups with multi-sectoral operations and smaller enterprises with more specialized and/or limited business activities.

Within the category of large construction groups, ΓΕΚ ΤΕΡΝΑ Α.Ε. constitutes one of the most significant vertically integrated infrastructure conglomerates in Greece. The company operates not only in the construction sector but also in the energy and concession ones, thereby achieving diversification of revenue streams and reducing dependency on public works. Its strategic orientation focuses on large-scale infrastructure projects, such as motorways, energy infrastructure and Public – Private Partnership (PPP) schemes, which require substantial capital adequacy and a long-term investment horizon. In the construction segment, ΓΕΚ ΤΕΡΝΑ Α.Ε. participates in major infrastructure projects (road networks, railway works and building developments), while through its concessions portfolio it secures long-term contractual arrangements that generate stable cash flows. At the same time, undertaken projects in the energy sector (production and management of energy) further enhance revenue diversification and mitigate exposure to public procurement cycles (ΓΕΚ ΤΕΡΝΑ, 2024; Bank of Greece, 2023). The company’s strategy is fundamentally based on participation in PPPs and concession projects, which, while capital-intensive, provide long-term stability and predictable cash flows.

Similarly, J&P ΑΒΑΞ Α.Ε. is also one of the historically most well-established groups in the Greek construction industry, with extensive experience in the execution of large-scale infrastructure projects both domestically and internationally. The company has been involved in massive transport infrastructure and energy projects, while its performance remains highly sensitive to the cycle of public investment and prevailing liquidity conditions in the market. Its business model is primarily based on the execution of complex, high-value technical projects requiring significant expertise and project management capacity (ΑΒΑΞ, 2024). Financial performance is strongly influenced by public procurement cycles and market liquidity conditions, rendering the company sensitive to macroeconomic fluctuations (Deloitte Greece, 2023).

ΙΝΤΡΑΚΑΤ Α.Ε., representing the construction part of the ΑΚΤΩΡ group of companies, has exhibited a pronounced growth trajectory throughout the recent years and keeps pursuing a strategic expansion of its project portfolio. The company is active in infrastructure construction, energy projects and telecommunications infrastructure, while it has strengthened its position through increased participation in PPPs. Its strategic orientation emphasizes the expansion of its backlog and improved profitability through participation in major public infrastructure projects of national importance (ΙΝΤΡΑΚΑΤ, 2024; PwC

Greece, 2023). The company is transitioning from a traditional construction-oriented model towards a more integrated infrastructure and energy conglomerate structure.

At a different level of analysis, smaller listed construction firms exhibit more limited operational scopes and often specialized activities in specific project categories or geographical regions.

EKTEP A.E. primarily engages in building and other technical works, with emphasis on public buildings, tourism infrastructure and medium-scale projects. The company is characterized by operational flexibility, enabling it to adapt to fluctuations in construction demand, particularly during periods of constrained public spending. Its activities are predominantly concentrated in the domestic market, with limited international exposure (EKTER, 2024; ICAP CRIF, 2023).

ΔΟΜΙΚΗ ΚΡΗΤΗΣ A.E. emerges as a typical example of a regional construction company with a strong local presence, specifically in Crete. It is active in both public infrastructure works (road construction, water supply projects and building works) and private residential construction activities. Its regional orientation allows it to capitalize greatly on local development projects, although it remains constrained in terms of scale compared to other larger national groups (Domiki Kritis, 2024).

BIOTEPA A.E. constitutes a representative case of a company significantly affected by the prolonged economic recession in Greece, resulting in a substantial contraction of its operations and reduced participation in major infrastructure projects. Its activity has been largely limited to smaller-scale works or residual contractual obligations, reflecting the difficulties faced by many mid-sized construction firms in accessing financing and large public contracts in the post-crisis environment (ICAP CRIF, 2023).

Similarly, ΠΡΟΟΔΕΥΤΙΚΗ A.T.E. has exhibited limited operational activity in recent years, reflecting the broader decline of smaller technical firms following the economic crisis and the reduction in available public investment financing. Although historically active in public works, its current engagement in large-scale projects has diminished significantly, highlighting structural constraints affecting smaller contractors (PwC Greece, 2023).

Ο ΚΕΚΡΟΨ A.E. differs fundamentally from pure construction companies, as its primary activity is concentrated in real estate development and property management. While historically linked to the construction sector, it currently operates predominantly as a real

estate investment and asset management entity, focusing on property development and urban land utilization (KEKROPS, 2024).

The analysis of the selected listed construction companies highlights the aforementioned heterogeneity of the sector in terms of scale, structure and business model. Large groups exhibit vertical integration, internationalization and diversification, whereas smaller firms face significant constraints related to financial sustainability and limited access to major infrastructure projects. This imbalance is further reinforced by capital adequacy requirements, access to financing and the capacity to participate in PPP and other concession frameworks (Bank of Greece, 2023; Deloitte Greece, 2023). The overall structure of the sector remains closely linked to the public domestic and European investment cycle and the availability of financing, which are key determinants of its dynamics.

3. Analysis of Financial Statements

3.1 Introduction to Financial Analysis

Financial analysis constitutes one of the most useful tools of modern financial science, enabling the systematic evaluation of the financial position, profitability and future prospects of companies. In the contemporary economic environment, which is characterized by increased market volatility, globalization and continuous technological advancements, the availability of reliable and timely financial information has become crucial for effective managerial, investment and financing decisions (Penman, 2024). Its importance is particularly evident during periods of economic uncertainty and crisis, when accurate financial information supports the assessment of risk, the strategic planning and the efficient allocation of available resources (White et al., 2020).

In the context of this dissertation, the primary function of financial analysis is the interpretation of the data in financial statements in order to assess enterprise performance and financial sustainability. The examination of the balance sheet, the income statement and the cash flow statement enable the evaluation of liquidity, profitability, solvency and operational efficiency. In particular, cash flow analysis provides critical insight into the ability of companies to generate and manage monetary funds, which is fundamental for ensuring long-term viability and financial resilience (Barker & Penman, 2022).

Financial analysis may also serve as a central mechanism for evaluating managerial efficiency and the effectiveness with which companies utilize the available resources. Through the application of ratio analysis, the financial data are transformed into standardized and comparable indicators that facilitate the assessment of key performance dimensions. Ratios such as Return On Assets (ROA), Return On Equity (ROE), current ratio and debt-to-equity ratio enable both timeline comparisons and benchmarking against industry peers, thereby supporting more objective and better informed decision-making (Brigham & Ehrhardt, 2022). Furthermore, the systematic monitoring of these indicators contributes to the early identification of any financial risks and operational inefficiencies, thus allowing companies to timely implement corrective measures, before the identified problems can potentially escalate into severe financial distress (Atrill & McLaney, 2022).

Beyond the assessment of historical and current performance, financial analysis performs an essential predictive role by supporting the evaluation of future enterprise prospects.

Techniques such as trend analysis, forecasting models and risk assessment methods facilitate the estimation of future profitability and long-term sustainability. Modern research indicates that the incorporation of market-based information, macroeconomic variables and alternative data sources has substantially improved the reliability and explanatory power of financial forecasting models (Nissim, 2023).

Financial analysis also constitutes a cornerstone of business valuation and investment decision-making. The utilized valuation methodologies such as Discounted Cash Flows (DCF) analysis rely extensively on historical and projected financial data (Damodaran, 2023). Through financial analysis, companies and potential investors are able to identify key value drivers, including free cash flow, profitability, capital structure and cost of capital. Empirical evidence has demonstrated that companies characterized by strong liquidity and lower leverage tend to exhibit enhanced resilience during periods of economic instability, like the COVID-19 pandemic and the global energy crisis (OECD, 2023).

The significance of financial analysis is further reinforced by its interdisciplinary nature, integrating principles deriving from Accounting, Economics, Business Administration, Statistics and Econometrics. Accounting provides the financial information necessary for the following analysis, while Economics offers the broader framework utilized for interpreting the market conditions and the macroeconomic influences on firm performance. Statistical and econometric methods contribute to the development of forecasting and predictive models, whereas Business Administration uses the produced analytical outcomes to proceed with strategic planning and performance optimization. Consequently, financial analysis should not be regarded solely as a descriptive tool, but rather as an integrated framework for evaluation, forecasting and strategic decision-making.

Despite its substantial advantages, financial analysis is subject to certain limitations that should be acknowledged when interpreting analytical results. Its effectiveness heavily depends on both the quality and reliability of accounting information, which may be influenced by managerial estimates, discretionary assumptions and alternative accounting policies. Variations in revenue recognition methods, depreciation policies or inventory valuation techniques may significantly affect the reported profitability and financial position (White et al., 2020). Moreover, financial analysis primarily focuses on quantitative measures and may, therefore, underestimate qualitative factors such as managerial

competence, organizational culture, innovation capacity and brand reputation, despite their importance for long-term competitiveness and sustainability (Palepu et al., 2022).

The importance of financial analysis is particularly pronounced within the construction industry, due to the distinct operational and financial properties of the sector. The highly capital-intensive environment in which the construction companies operate is characterized by long project durations, contractual complexity and significant timing differences between expenditure recognition and revenue generation. These elements create elevated financial risk and intensify the need for effective financial planning, monitoring and control at all stages.

Within the modern construction environment there is increasing demand for engineers who not only possess technical expertise but also exhibit strong competencies in accounting and financial analysis. Modern construction projects require multidisciplinary decision-making, where engineering considerations must be evaluated alongside financial feasibility, profitability and risk management criteria. As a result, engineers with knowledge of financial analysis are better equipped to assess project viability, manage costs, evaluate investment alternatives and support strategic planning processes. The integration of engineering and financial expertise has become essential in order to ensure both successful execution and sustainability of construction projects. Financial analysis enables construction professionals to evaluate liquidity conditions, profitability levels, working capital requirements and financing structures, all of which directly influence project continuity and organizational performance (Brigham & Ehrhardt, 2022). In particular, cash flow management is of critical importance for construction firms due to the long project lifecycles and delayed receivables that characterize the sector. Effective monitoring of cash inflows and outflows is therefore indispensable in order to ensure uninterrupted project execution and timely completion (Atrill & McLaney, 2022).

Financial ratio analysis also plays a central role in evaluating construction firms. Liquidity ratios assess the ability of firms to meet short-term obligations, profitability ratios evaluate operational performance and leverage ratios measure the extent of financial risk associated with financing activities through debt. Through the systematic application of these indicators, construction companies may improve resource allocation, strengthen financial stability and enhance strategic competitiveness within the increasingly demanding modern market conditions.

Furthermore, financial analysis contributes to improving communication with external stakeholders, including investors, creditors and regulatory authorities. Since construction firms frequently depend on external financing especially for large-scale projects, financial transparency and analytical credibility are essential for securing funding and maintaining investor confidence. Consequently, the growing complexity of the construction industry further reinforces the necessity for engineers capable of integrating technical knowledge with financial and managerial competencies.

In conclusion, financial analysis represents a fundamental mechanism for evaluating corporate performance, financial stability and future growth prospects. Its contribution is particularly important within the construction sector, where the complexity, capital intensity and long-term nature of projects require continuous financial monitoring and strategic decision-making. In this context, the integration of engineering expertise with financial analysis competencies has become essential, enabling construction professionals to support sustainable project execution, effective resource allocation and long-term organizational success.

3.2 Sources of Information for Financial Analysis

The published statements of companies, prepared in accordance with International Financial Reporting Standards (IFRS) constitute the main source of information for financial analysis. The adoption of IFRS enhances the comparability, the transparency and the reliability of financial reporting at an international level, thus enabling analysts to assess firms irrespective of geographical, national, institutional or other differences on ground of the common format and the actual contents (IFRS Foundation, 2024; IASB, 2023).

The core financial statements that form the foundation of analysis are:

- The balance sheet which presents the financial position of a company at a specific point in time (usually the end of the fiscal year) capturing total assets, liabilities and equity. The balance sheet serves as the basis for assessing capital structure, solvency and the degree of financial leverage, which are key elements in the evaluation of potential financial risk.
- The income statement which reflects the financial performance of a company over a defined period (fiscal year in most cases) by presenting revenues, expenses and the

resulting profits or losses. The analysis of the income statement enables the assessment of operational efficiency and the ability of the firm to actually generate earnings through the core business activities.

- The cash flow statement is considered particularly critical, as it focuses more on liquidity rather than on accounting profitability. It is divided into operating, investing and financing activities and provides essential information regarding the ability of the firm to generate cash inflows (Penman, 2024).
- The statement of changes in equity (although often incorporated within the cash flow statement) which captures the dynamic evolution of the net position of a company by incorporating profits and losses, dividend distributions, capital increases and other accounting adjustments. It therefore offers a more comprehensive view of the internal financial stability and progression of the firm.

Beyond financial statements, modern financial analysis increasingly incorporates non-financial data. These include corporate governance indicators, management strategy, environmental – social – governance (ESG) performance metrics, as well as information related to innovation capacity and competitive positioning. ESG performance is deemed to be strongly associated with long-term financial performance and reduced business risk, making it an additional critical component of investment evaluation (Friede et al., 2015; Eccles et al., 2014).

Especially for listed companies, capital market data also play a particularly important role, since they provide a dynamic reflection of market perceptions. Stock prices, returns, volatility, trading volume and corporate announcements constitute some key variables when assessing investor confidence and firm valuation. The Athens Exchange Group (ATHEX) provides access to both historical and real-time data, which are widely used in both academic research and professional financial analysis (Athens Exchange Group, 2024).

Ultimately, the actual value of financial analysis lies in the integrated use of all the aforementioned sources. The combination of accounting, non-financial and market-based data enables the development of a holistic view of the company, extending beyond the superficial description of its current condition to the credible assessment of its future trajectory. However, the reliability of any analytical conclusions is directly dependent on data quality, consistency and timeliness. Potential accounting distortions, measurement

errors or incomplete disclosures may lead to misleading interpretations, thereby requiring cross-validation of any initial information from multiple sources (White et al., 2020).

3.3 Financial Ratio Analysis

As previously mentioned, financial analysis constitutes a comprehensive process for evaluating the financial position, profitability and future prospects of companies. In order for the resulting information to be comparable, interpretable and operationally useful, it is necessary to transform raw accounting figures into standardized indicators. At this stage, ratio analysis has been introduced as a fundamental tool of modern financial analysis (White et al., 2020). Calculating and assessing financial ratios is a technique for compressing and structuring financial information, whereby relationships between accounting variables are converted into comparable and interpretable numbers. Rather than just examining isolated absolute figures – such as net income or total assets – ratios express relationships pertaining to profitability, liquidity and capital structure, thereby enabling a more comprehensive assessment of the financial condition of a firm (Kieso et al., 2022).

3.3.1 Theoretical Foundation and Evolution of Ratio Analysis

The integration of statistical quantitative methods and actual comparative benchmarking has provided financial analysts with the capability to advance assessment beyond the simple descriptive interpretation of data towards more refined and well-structured assessment frameworks. This led to the development of predictive models based on combinations of the various financial ratios.

The work of Edward Altman in 1968 marked a seminal milestone of that evolution. The Altman’s Z-Score model was introduced as a means of predicting potential corporate bankruptcy. This model was an important methodological advancement, combining multiple financial ratios in a concrete equation that produced solid estimations regarding the probability of financial distress (Altman, 1968). Since then, other models were developed such as Zmijewski X-Score, Springate S-Score and Ohlson O-Score, that contributed to the evolution of financial ratio analysis from a mere descriptive tool to the basis of prediction and risk-assessment models. At the same time, the increasing availability of computational tools and techniques has also contributed to upgrading the scope of financial ratio analysis,

by enabling more advanced modelling approaches such as multivariate analysis, time-series evaluation and machine learning frameworks.

As a result, financial ratio analysis has become an integral and indispensable part of all forms of modern empirical financial research and decision-making support systems.

3.3.2 Purpose and Function of Financial Ratios in Financial Analysis

Early on, the need for enhanced comparability, standardization and interpretability of the derived financial information contributed to the transition from the analysis of absolute accounting figures to the utilization of financial ratios. The absolute values reported in the published financial statements provide significant information in themselves, but their sole evaluation without contextual relationships lacks sufficient analytical depth. This limitation is addressed through the use of financial ratios that have the capability of expressing interdependencies between the key financial variables. In this way, the interpretation of the analysis acquires further meaning corresponding to the targeted corporate performance.

Within this context, financial ratio analysis facilitates the identification of the underlying economic relationships that are not readily observable when examining the raw accounting data. For example, the Return On Equity (ROE) ratio integrates profitability, operational efficiency and financial leverage into a single performance metric. In this way, the ROE provides a comprehensive assessment of the return generated on the capital invested by shareholders. In the same way liquidity ratios, such as the current ratio, intend to evaluate the capacity of the firm under examination to cover the short-term obligations, thus providing critical insight into the corresponding short-term financial stability.

In modern practice, ratio analysis extends beyond a static description of the financial position of companies by being employed in trend analysis and forecasting applications. The longitudinal examination of key financial indicators over a specified period of time (usually a discrete number of fiscal years) provides financial analysts with the capability to identify structural changes in corporate performance and estimate potential future progress of corporate financial health. This dynamic application elevates the significance of ratio analysis as both a diagnostic as well as a predictive tool within the modern financial decision-making frameworks (Penman, 2024).

3.3.3 Advantages of Financial Ratio Analysis

The use of financial ratios offers several significant advantages, enhancing the effectiveness and applicability of analysis in both academic research and professional practice. These advantages constitute the primary reason why their use has greatly prevailed over the assessment of absolute accounting data in the fields of corporate evaluation and investment risk assessment.

First of all, maybe the most significant advantage is the fact that financial ratios facilitate the comparability between companies of different sizes, industries and corporate structures by introducing relativity on the expression of financial information instead of reporting in absolute terms. This normalization enables financial analysts to evaluate performance on a standardized basis, thus improving the interpretability of financial data and allowing for meaningful cross-sectional comparisons (Brigham & Ehrhardt, 2022).

Secondly, the use of financial ratios greatly supports the longitudinal systematic examination of the financial information corresponding to a single financial entity aiming to uncover the underlying temporal trends. Through the analysis of key financial performance indicators over time, it has become possible to identify the existing patterns of improvement or deterioration in financial performance, operational efficiency and capital structure. This perspective has become essential in the assessment of corporate performance sustainability and in the detection of early markers signaling strategic and/or financial shifts. Last but not least, it would be an oversight to not mention the contribution of financial ratio analysis to assessing rapidly and efficiently the overall financial condition of a firm. This is performed through the condensation of the complex financial statement information into a specific set of key financial indicators, thus enabling the stakeholders (management, investors, creditors, etc.) to form their opinions regarding liquidity, profitability and solvency in an efficient and timely manner. This aspect of financial ratio analysis is of utmost importance within financial environments that are characterized by a high level of information asymmetry and requiring time-sensitive decision-making. In such environments, the prompt evaluation of the available financial information is critical for conducting financial risk assessments and the following financial decisions (Brigham & Ehrhardt, 2022)

3.3.4 Limitations and Misinterpretation Risks

Despite its considerable analytical value and potential, financial ratio analysis is also subject to a number of inherent limitations, as is the case with every assessment tool. It is highly important not only to be aware of these limitations, but also to carefully consider them before any application.

Firstly, the dependence of financial ratio analysis on historical financial data can constrain the predictive accuracy if used in isolation. This limitation can be mitigated by complementing financial ratio analysis with an assessment of the broader macroeconomic environment, industry dynamics and firm-specific factors, thus significantly enhancing both its explanatory and forecasting capability.

Secondly, it has been established that financial ratios are highly affected by any underlying accounting policies, estimation techniques and managerial discretion employed in the preparation process of financial statements. In other words, the calculated financial ratios carry any assumptions and uncertainties (be them voluntary or not) that influenced the preparation of the source financial data. For example, common variations in accounting choices – such as utilized methods for revenue recognition, approaches to asset valuation and policies regarding depreciation – can substantially influence the reported financial outcomes. Such deviations have been found to reduce comparability across companies and potentially introduce distortions in the resulting ratio-based evaluations (White et al., 2020). Lastly, taking into account the multidimensional nature of corporate financial performance, relying excessively on individual financial ratios (most commonly the ROE, ROA and ROI) may lead to incomplete or even misleading conclusions. The complex financial, operational and strategic environment within which modern corporations function cannot be sufficiently captured through isolated financial indicators. Therefore, any analysis that is based solely on single ratios is running the risk of producing oversimplified and biased analytical results. It is exactly for this reason why the modern academic literature strongly advocates the use of composite indicators, combinations of ratios and multivariate models, aiming to integrate multiple dimensions of the examined financial performance. Such elaborate approaches, that intend to actually capture any existing interdependencies between the financial variables, are expected to enhance the analytical robustness and result in improved reliability of the findings (Lev & Sunder, 1979; Palepu et al., 2022).

3.3.5 Conclusions

In conclusion, it has been well established that financial ratio analysis constitutes not only a highly useful tool, but also a fundamental pillar of financial analysis. It has the inherent capability of transforming raw accounting data into structured, interpretable and comparable information. Through the transformation of the figures reported in financial statements into standardized indicators, financial ratio analysis enhances the analytical value of financial reporting and further facilitates more rigorous evaluation of corporate performance.

In this regard, financial ratio analysis is deemed to operate as a critical intermediary between the financial statements and the actual decision-making process, supporting a wide range of financial applications, such as company valuation, performance assessment, credit evaluation and investment risk management. By systematically interpreting the key financial relationships, financial ratio analysis provides the stakeholders with the capability to draw conclusions and form evidence-based judgements regarding the financial situation and the strategic positioning of the examined company.

Despite the inherent limitations (present in any form of assessment and evaluation paradigm), financial ratio analysis remains substantially relevant within the modern financial practice. Its effectiveness is further enhanced when applied in conjunction with techniques for qualitative assessment and sector-specific analysis. Accordingly, it continues to represent an essential component of integrated financial evaluation frameworks, especially in market environments characterized by complexity, uncertainty and rapid economic change.

3.4 Financial Ratio Categories

Considering the amplitude and diversity of the established financial ratios that are employed in financial analysis, it is deemed necessary that they are systematically classified into distinct categories in order to facilitate a structured and comprehensive presentation. This categorization of the financial ratios according to their analytical focus – such as liquidity, efficiency, profitability, leverage, investment and survivability – enhances the interpretability and the comparability of the financial information, while at the same time enabling a more coherent assessment of the various aspects of the financial condition of companies. Such a classification framework not only improves the analytical clarity of

financial analysis, but also supports the identification of specific strengths, weaknesses and potential risks associated with corporate performance and financial structure.

3.4.1 Liquidity Ratios

Liquidity ratios are widely used in financial statement analysis to evaluate the capacity of a company to meet its short-term obligations and maintain the near-future operational continuity (Eriotis, 2005). Their importance is particularly evident in capital-intensive industries such as construction, where companies face significant working capital requirements, extended project cycles and volatile cash flow patterns (OECD, 2024; ELSTAT, 2024). Within financial analysis, these indicators are considered essential measures of short-term solvency and financial stability, as they provide insights into the ability of a company to manage its current liabilities under varying economic conditions. Adequate liquidity levels are generally associated with reduced financial risk and greater operational sustainability, whereas insufficient levels may increase the exposure to short-term financial distress (Ross et al., 2019; Brigham & Ehrhardt, 2022). The recent literature further highlights their significance in assessing corporate resilience and financial equilibrium, particularly during periods of economic uncertainty and limited access to external funding (Fraser & Ormiston, 2018).

3.4.1.1 Current Ratio

The current ratio measures the relationship between the current assets (cash, receivables, and stock) and current liabilities. This ratio serves as a key indicator of the capability of a firm to meet its short-term obligations using readily available funds. It is calculated through the following formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

A current ratio value exceeding 1 indicates that the company possesses sufficient current assets to cover its current liabilities. Nevertheless, excessively high values may signal inefficient capital allocation (heavy investment in current assets) and suboptimal utilization of the available funding resources.

3.4.1.2 Quick Ratio

The quick ratio (also called the acid-test ratio) modifies the calculation of the current ratio by excluding the inventory from the current assets, on the grounds that inventory assets are considered less readily convertible into cash, as compared to other liquid assets (Eriotis, 2005). Therefore, it is calculated through the following formula:

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} = \frac{\text{Receivables} + \text{Cash}}{\text{Current Liabilities}}$$

The quick ratio provides a more rigorous assessment of the ability of a firm to cover its short-term obligations and immediate repayment requirements. Generally, quick ratio values near 1 are satisfactory, while lower values may be a strong indication that the assets available for rapid liquidation may not suffice to cover short-term liabilities.

3.4.1.3 Cash Ratio

The cash ratio focuses exclusively on cash holdings and cash equivalents, providing a highly conservative measure of the immediate liquidity position of companies. It is calculated through the following formula:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Cash Equivalents}}{\text{Current Liabilities}}$$

The cash ratio is generally considered the most stringent liquidity ratio, as it reflects the immediate ability of a company to meet its payment obligations using only the most liquidable assets (Eriotis, 2005).

3.4.1.4. Defensive Interval Ratio

Through the defensive interval ratio, the time variable (expressed in days) is introduced in financial analysis of liquidity. The ratio expresses the period for which a company can operate without turning operating income into cash flows. It is calculated through the following formula:

$$\text{Defensive Interval Ratio} = \frac{\text{Receivables} + \text{Cash}}{\text{Daily Operating Expenses}}$$

This specific ratio is not assessed in this dissertation, since it requires insight of the estimated daily expenses of operations (Eriotis, 2005).

3.4.1.5 Importance and Limitations of the Liquidity Ratios

The liquidity ratios have been assigned a central position within financial analysis, as they provide an initial but essential assessment of short-term financial resilience of companies.

More specifically, they contribute to:

- the evaluation of creditworthiness, by enabling lenders to estimate the capability of a firm to meet short-term obligations
- investment decision-making, as potential investors use them to assess the short-term financial stability and current risk exposure of a firm
- the assessment of short-term sustainability, particularly in environments characterized by volatility and/or constrained access to external funding
- liquidity risk management, by assisting corporate management in identifying potential cash flow pressures and funding insufficiencies well in advance.

Notwithstanding their analytical value, the liquidity ratios are subject to several methodological and interpretative constraints that must be acknowledged before drawing final conclusions. Specifically:

- They fail to incorporate qualitative dimensions of current assets, such as the actual collectability of receivables or the realizable value of inventory items.
- They are affected by the application of different accounting policies and estimation techniques, which may reduce comparability across companies and time periods.
- In isolation, they provide a partial view of financial position and may require industry benchmarking to be meaningfully interpreted.

Accordingly, the liquidity ratios should not be examined independently but rather in conjunction with other financial indicators – particularly the profitability and capital structure ratios – in order to achieve a more complete and reliable evaluation of the overall financial performance and risk profile of the examined company.

3.4.2 Activity Ratios or Efficiency Ratios

Activity ratios form another important category of financial ratios, being utilized to evaluate the efficiency with which companies use the available assets (potentially converting them into cash) and manage the rest of the operational resources. Such measures aim to assess the effectiveness of asset utilization, (working) capital management as well as the overall

efficiency of business operations, thus providing valuable insights into the actual operational performance and productivity (Ross et al., 2019).

Within the general financial analysis framework, activity ratios are additionally employed to assess managerial effectiveness, operational sustainability and the capacity of companies to generate revenue from available resources. Lower efficiency levels may indicate a certain degree of operational inefficiency and ineffective resource allocation, whereas higher efficiency has been associated with improved profitability, greater cash flows and enhanced financial performance (Brigham & Ehrhardt, 2022; Fraser & Ormiston, 2018). Recent literature further highlights their importance in evaluating corporate competitiveness and long-term financial sustainability under volatile economic conditions (Damodaran, 2023; Atrill & McLaney, 2022).

The relevance of activity ratios is particularly pronounced in industries characterized by intensive operational processes and substantial capital commitments, with the construction sector representing a prime example. Construction companies frequently have to deal with extended project durations, complex receivables collection procedures and significant investments in assets and inventory. These factors directly influence the exhibited operational efficiency and the cash conversion cycles (OECD, 2024; ELSTAT, 2024).

3.4.2.1 Trade Creditors Turnover Ratio

It is common practice for businesses to purchase resources and defer payment for a later time (buying on credit). Such an arrangement constitutes a form of accounting obligation. The capability of the company to actually ensure that sales cover the generated liabilities to creditors is an important element during the financial assessment. The Trade Creditors Turnover Ratio is calculated through the following formula:

$$\text{Trade Creditors Turnover Ratio} = \frac{\text{Net Credit Purchases}}{\text{Average Trade Credit Height}}$$

This ratio provides insight into the ability of the company to pay its credit obligations (Eriotis, 2005). Higher values indicate a generally effective credit management with prompt payment to vendors, leading to increased trustworthiness.

3.4.2.2. Inventory Turnover Ratio

It is self-evident that the primary objective of any company is to perform sales. This ratio indicates the number of times inventory is sold (and subsequently replenished) over a given accounting period. It reflects the efficiency with which a firm manages its inventory levels and converts stock into sales within the operational cycle. It is calculated through the following formula:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold (COGS)}}{\text{Average Inventory}} = \frac{\text{Net Sales}}{\text{Average Inventory}}$$

If the COGS is not determined, it can be replaced by the value of the Net Sales. A high value of the inventory turnover ratio indicates efficient inventory management and rapid sales of products, suggesting that stock is being converted into revenue effectively. On the other hand, a low value may imply excessive inventory levels, slow-moving goods, or weakened demand, potentially signaling inefficiencies in sales performance or procurement planning (Eriotis, 2005). It is important to note that there is no generally accepted value threshold against which the inventory turnover ratio values are compared. This is performed against the industry average, thus benchmarking the performance of the examined company against the rest of its peers.

3.4.2.3 Average Selling Period (Days in Inventory)

This ratio expresses the average number of days required for a firm to turn its inventory into sales. Thus, the time variable (expressed in days) is introduced in the financial analysis of corporate efficiency. It is an indication of efficient selling operations and the estimated liquidity of inventory. It is calculated through the following formula:

$$\text{Average Selling Period} = \frac{365}{\text{Inventory Turnover Ratio}}$$

A shorter selling period indicates an enhanced liquidity position and reduces credit risk, as it indicates faster conversion of inventory into cash (Eriotis, 2005).

3.4.2.4 Receivables Turnover Ratio

This ratio measures the efficiency and speed with which a company collects its outstanding receivables from customers. Selling on credit is also a common business practice. In contrast to the trade creditors turnover ratio, it reflects the effectiveness of the applied credit policy

and collection procedures, as well as the liquidity of trade receivables within the operating cycle. It is calculated through the following formula:

$$\text{Receivables Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivables}}$$

A high receivables turnover ratio indicates prompt collection of outstanding receivables and, consequently, an effective credit policy and efficient credit management practices (Eriotis, 2005).

3.4.2.5 Average Collection Period (Days Sales Outstanding)

This ratio expresses the average number of days required for a firm to collect its accounts receivable. It provides insight into the efficiency of the credit management process and the liquidity of trade receivables, indicating how quickly credit sales are converted into cash within the operating cycle. It is calculated through the following formula:

$$\text{Average Collection Period} = \frac{365}{\text{Receivables Turnover Ratio}}$$

A shorter collection period enhances a firm's liquidity position and reduces credit risk, as it indicates faster conversion of receivables into cash and a more effective management of customer credit exposure.

3.4.2.6 Working Capital Turnover Ratio

This ratio measures the sales generated per unit of working capital. It is mainly used in comparison with corresponding ratios of similar companies to derive conclusions regarding optimization of working capital investment and use. (Eriotis, 2005). It is calculated through the following formula:

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Working Capital}}$$

A higher working capital turnover ratio may indicate the efficient utilization of the working capital and be used to assess the quality of its capital structure. In other words, it is an indicator of optimal management of the company capital and generating revenue without needing excess funding. However, it should be noted that excessively high values may be a warning sign that the company over-uses the existing funding, without maintaining a safety buffer for potential future solvency issues.

3.4.2.7 Asset Turnover Ratio

This ratio measures the efficiency with which a firm utilizes its total asset base to generate sales revenue. It reflects the overall effectiveness of asset deployment and managerial efficiency in converting investments in assets into operating income (Eriotis, 2005). It is calculated through the following formula:

$$\text{Asset Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

A higher total asset turnover ratio indicates more efficient utilization of the asset base, as it reflects a greater volume of sales generated per unit of assets employed, thereby signaling improved operational efficiency and asset productivity.

3.4.2.8 Fixed Asset Turnover Ratio

This ratio focuses specifically on the fixed part of the assets a company owns. Its primary purpose is to identify potential over-investment in fixed assets (Eriotis, 2005). It is commonly observed that many large-scale companies invest in fixed assets to avoid leasing costs. It is calculated through the following formula:

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets}}$$

A higher fixed asset turnover ratio indicates intensive utilization of fixed asset to generate sales income. It is important to keep this ratio in check, as overfocusing on attaining high values may lead to over-investment in fixed assets.

3.4.2.9 Equity Turnover Ratio

In a similar way to the asset turnover ratios, the equity turnover ratio can demonstrate efficient equity use to generate sales revenue (Eriotis, 2005). After all, the stakeholder equity is the primary source of financing company operations. It is calculated through the following formula:

$$\text{Equity Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Equity}}$$

A higher equity turnover ratio is an indicator of improved financial position, as it is deduced that the company can employ equity to generate high earnings. But overly high values may indicate that the company operations are overly dependent on debt, thus prone to potential financial distress.

3.4.2.10 Importance and Limitations of Activity Ratios

Activity ratios contribute significantly to the assessment of several critical dimensions of corporate financial performance, particularly those related to operational efficiency and the effectiveness of inventory, working capital, asset and equity management. In other words, they measure the efficiency with which short-term resources and assets are utilized to generate revenue. In this sense, they provide important insight into the internal operational dynamics of the enterprise and the quality of managerial decision-making.

In addition, activity ratios play a key role in working capital management, as they enable monitoring of cash conversion speed within the operating cycle. This is particularly relevant to maintaining a sufficient liquidity balance, since inefficient inventory or receivables management can constrain cash flows even in the case of otherwise profitable firms. Furthermore, these indicators are essential in assessing the efficiency of inventory control systems and credit policies, both of which directly influence operational stability and financial performance.

From a strategic perspective, activity ratios support managerial decision-making by identifying areas of inefficiency and enabling corrective actions aimed at improving resource allocation. Their implications extend beyond internal management, as they are also closely linked to profitability, cost efficiency and competitive positioning in the market. In this regard, higher operational efficiency is generally associated with improved profit margins, reduced holding and financing costs and stronger competitive advantage.

During periods of economic downturn or financial stress, the importance of activity ratios becomes even more pronounced. Efficient management of receivables and inventories is often a decisive factor for business continuity, as it ensures adequate liquidity and reduces exposure to credit and inventory-related risks. Consequently, firms with strong activity performance tend to exhibit greater resilience under adverse economic conditions.

Despite their analytical value, activity ratios must be interpreted with caution due to several inherent limitations. Firstly, they are significantly affected by any temporal variations in sales, which may distort short-term comparisons. Secondly, their values differ widely across industries, reflecting structural differences in operating models and therefore limiting cross-sector comparability. Third, they may be influenced by implemented accounting policies and managerial reporting choices, thus affecting their consistency and reliability. Finally,

they often fail to capture qualitative aspects of asset management, such as customer credit quality or inventory obsolescence risk.

For these reasons, activity ratios should not be analyzed in isolation but rather in conjunction with liquidity, profitability and capital structure ratios. Such a multidimensional approach enables a more robust and comprehensive evaluation of a firm’s overall financial performance and strategic position.

3.4.3 Profitability Ratios

Another fundamental category of financial indicators is the one comprised of the profitability ratios, that are used to evaluate the ability of a firm to generate actual earnings from its operations, assets and invested capital. This is arguably the most important category for stakeholders, as it addresses the fact that the company not only covers the generated obligations, but also produces excess value that can be reinvested into further development or distributed to the stakeholders. These returns constitute the main incentive for stakeholders to engage in corporate activities. Therefore, the profitability ratios are widely employed by investors, creditors and corporate management in financial analysis and decision-making processes (Ross et al., 2019).

The importance of profitability analysis is particularly evident in capital-intensive industries, such as construction, where firms operate under conditions of high operating costs, substantial investment requirements and volatile market conditions. In such environments, profitability indicators contribute to the assessment of operational sustainability, competitive performance and long-term corporate viability (OECD, 2024; ELSTAT, 2024).

Within the financial literature, higher profitability levels are generally associated with the efficient utilization of resources, stronger financial stability and enhanced growth potential, whereas persistent low profitability may indicate operational inefficiencies and increased exposure to financial distress (Brigham & Ehrhardt, 2022). Recent studies further emphasize the role of profitability measures in evaluating corporate resilience, investment attractiveness and strategic performance under changing economic conditions (Atrill & McLaney, 2022; Fraser & Ormiston, 2018).

3.4.3.1 Gross Profit Margin

The gross profit margin ratio reflects the remaining profit after the COGS has been deducted from the net sales revenue. It indicates the ability of a company to generate profit from its core production or service activities before accounting for operating, financial and other expenses, providing a key measure of pricing efficiency and cost control at the production level. It is calculated through the following formula:

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Net Sales}}$$

A high value indicates effective control over production costs and a strong pricing strategy, thus reflecting the capability to maintain a favorable margin between revenue and cost of goods sold.

3.4.3.2 Net Profit Margin

This ratio measures the net profit generated per unit of sales. It reflects the proportion of revenue that actually remains as profit after all operating, financial and tax expenses have been deducted, thereby providing a comprehensive indication of overall profitability. It is calculated through the following formula:

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Net Sales}}$$

It is self-evident that higher values indicate more profitable corporate operations.

3.4.3.3 Operating Profit Margin

This ratio is an indicator of the operating earnings per unit of sales. It actually reflects the part of the profitability of the company that can be attributed to the operating activities, taking into consideration that part of the earnings will later be used to pay the corresponding interest and taxes. It is calculated through the following formula:

$$\text{Operating Profit Margin} = \frac{\text{EBIT}}{\text{Net Sales}}$$

This ratio reflects the effective management of the core operating activities. Therefore, higher values indicate a corporate model that actually generates profits from its core activities.

3.4.3.4 Return on Assets – ROA

The return on assets (ROA) ratio assesses the ability of a firm to generate profits through the efficient utilization of its total asset base. It reflects the overall effectiveness of management in deploying both current and non-current assets to produce earnings, thereby serving as a key indicator of operational efficiency and asset productivity. It is calculated through the following formula:

$$ROA = \frac{\text{Net Profit}}{\text{Total Assets}}$$

A high ROA indicates efficient utilization of the asset base, suggesting that management is effectively converting investments in assets into net earnings and, consequently, achieving strong operational performance and asset productivity.

3.4.3.5 Return on Equity – ROE

The return on equity (ROE) measures the return generated for shareholders on their invested equity capital. It reflects the profitability attributable to owners of the firm and serves as a key indicator of how effectively management utilizes shareholders' funds to generate net income. It is calculated through the following formula:

$$ROE = \frac{\text{Net Profit}}{\text{Total Equity}}$$

It is considered one of the most important indicators for investors, as it evaluates the efficiency with which shareholders' capital is employed to generate profits, thereby providing critical insight into management effectiveness and value creation for equity holders.

3.4.3.6 Return on Investment – ROI

The return on investment (ROI) ratio measures the profitability or efficiency of an investment relative to its cost. It evaluates the extent to which the gains generated from an investment justify the resources committed, thereby providing a straightforward indicator of investment performance and economic efficiency. It is calculated through the following formula:

$$ROI = \frac{\text{Investment Income} + \text{Ending Investment Value}}{\text{Investment Costs}} - 1$$

It is used for the evaluation of investment projects and strategic decision-making processes, as it enables the comparison of expected or realized returns against the associated costs, thereby supporting rational capital allocation and resource prioritization within the firm.

3.4.3.7 Importance and Limitations of Profitability Ratios

Profitability ratios play a central role in financial analysis, as they provide a structured framework for evaluating the ability of a firm to generate earnings relative to its resource base. Beyond merely reflecting historical performance, they offer important insights into managerial efficiency, operational effectiveness and the overall sustainability of the business model. In this sense, they are not only outcome-oriented indicators but also reflections of the quality of strategic and operational decision-making within the firm.

More specifically, profitability ratios contribute to the assessment of economic performance by indicating how effectively a firm transforms revenues into net earnings. They also serve as a proxy for managerial effectiveness, as variations in profitability often reflect differences in cost control, pricing strategy and operational efficiency. Furthermore, they are widely used in investment decision-making, since they provide investors with essential information regarding expected returns and financial viability. In addition, profitability ratios are instrumental in analyzing the competitive position of a company, since sustained profitability often signals competitive advantages such as brand strength, cost leadership and operational efficiency. Finally, they support strategic planning by informing decisions related to expansion, diversification and resource allocation.

From a corporate finance perspective, firms with strong profitability profiles are generally better positioned to finance their operations internally, thereby reducing reliance on external funding sources and lowering financial risk. High profitability also enhances the capability of a company to undertake new investment opportunities, which in turn supports long-term growth and value creation. Moreover, profitable firms tend to be more attractive to investors, as profitability is closely associated with dividend-paying capacity and potential for capital appreciation. Over time, this contributes to the reinforcement of competitive advantage and market positioning.

Despite their importance, profitability ratios must be interpreted with caution due to several inherent limitations. First, they are derived from historical accounting information, which may not accurately capture future performance, particularly in dynamic or volatile market conditions. Second, they are subject to the influence of accounting policies, estimation

techniques and managerial discretion, which can reduce comparability across firms and time periods. Third, they do not explicitly incorporate macroeconomic or external environmental factors – such as inflation, interest rate fluctuations and regulatory changes – that may significantly affect profitability outcomes. Finally, their interpretative value is limited when used in isolation, as they do not provide a complete picture of financial health without comparison across industries and competitors.

For these reasons, profitability ratios should be analyzed as part of a broader financial framework, alongside liquidity, activity and capital structure ratios. This integrated approach enables a more comprehensive and reliable assessment of a firm’s overall financial performance, risk exposure and long-term sustainability.

3.4.4 Leverage Ratios

Leverage ratios constitute a significant category of financial indicators used to assess the extent to which a firm relies on debt financing in relation to its assets, equity and overall capital structure. This is the reason why they are also referred to as “financial structure and viability ratios” (Eriotis, 2005). These measures provide important insights into financial risk, solvency and the long-term sustainability of corporate operations and are therefore widely utilized by investors, creditors, financial institutions and regulatory bodies in evaluating financial stability and creditworthiness (Ross et al., 2019).

The analysis of leverage is particularly important in capital-intensive industries such as the construction sector, where firms frequently depend on external financing to support large-scale projects, infrastructure investments and long-term operational commitments. High levels of leverage may enhance growth potential and investment capacity. However, they also increase exposure to financial risk, interest obligations and refinancing pressures, especially during periods of economic uncertainty or reduced market activity (OECD, 2024; ELSTAT, 2024).

Within the financial literature, excessive leverage is commonly associated with increased vulnerability to financial distress and reduced financial flexibility, whereas balanced capital structures contribute to greater stability and sustainability (Brigham & Ehrhardt, 2022). Recent studies further emphasize the importance of leverage indicators in assessing corporate resilience, risk management and long-term financial performance under changing economic conditions (Atrill & McLaney, 2022; Fraser & Ormiston, 2018).

3.4.4.1 Debt to Equity Ratio

This ratio indicates the relationship between total liabilities and shareholders' equity, providing insight into the capital structure of firms and the relative weighting of external financing compared to owners' funds. It may also be considered as the inverse ratio of owner's equity to total liabilities. It is calculated through the following formula:

$$\text{Debt to Equity} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

A high value indicates greater reliance on debt financing and, consequently, a higher level of financial risk, as the firm is more exposed to interest obligations and potential difficulties in meeting its long-term commitments.

3.4.4.2 Debt Ratio

This ratio reflects the proportion of the corporate assets that are financed through external funding, thereby illustrating the extent of reliance on borrowed funds in the overall financing structure of the enterprise. It is calculated through the following formula:

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

The higher the ratio, the greater the degree of financial leverage and debt burden, indicating increased reliance on external financing and a correspondingly higher level of financial risk exposure.

3.4.4.3 Total Liabilities to Current Assets Ratio

This ratio reflects the ability of the company to meet its liabilities by expending only current assets, thus indicating a safe position regarding its financial stability. It is calculated through the following formula:

$$\text{Total Liabilities to Current Assets Ratio} = \frac{\text{Total Liabilities}}{\text{Current Assets}}$$

The higher the ratio, the greater the degree of financial leverage and debt burden that exceed the short-term financing capacity of the firm. This can lead to conclusions regarding higher financial risk and weaker liquidity position.

3.4.4.4 Interest Coverage Ratio

This ratio measures the capability of a firm to cover its financial expenses, such as interest payments, through its operating earnings, thereby indicating the extent to which core business performance is sufficient to meet debt-related obligations. It is calculated through the following formula:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

A high value indicates greater security for creditors and a lower risk of failure to meet interest obligations, reflecting a stronger capacity of the firm to service its debt through operating income.

3.4.4.5 Financial Leverage Ratio

This ratio measures the extent to which a firm uses debt financing in relation to its equity base. It provides an indication of the degree of financial leverage employed in the capital structure and reflects the balance between borrowed funds and shareholders' equity in financing the firm's assets and operations. It is calculated through the following formula:

$$\text{Financial Leverage Ratio} = \frac{\text{Total Assets}}{\text{Total Equity}}$$

Higher values indicate greater reliance on external financing and, consequently, increased exposure to financial risk, as the firm incurs higher fixed financial obligations and becomes more vulnerable to adverse changes in economic or credit conditions.

3.4.4.6 Importance and Limitations of Leverage Ratios

Leverage ratios are essential indicators of long-term solvency, financial risk and capital structure sustainability. They evaluate the extent to which firms rely on debt financing and their capacity to meet long-term obligations under changing economic conditions. Higher leverage may improve return on equity through the efficient use of debt financing; however, it also increases exposure to financial distress, liquidity pressures and earnings volatility, particularly during periods of rising interest rates or economic contraction (Brealey et al., 2023). Ratios such as debt-to-equity and interest coverage are therefore widely used to assess financing structure, debt-servicing capacity and overall financial resilience.

Despite their analytical relevance, leverage ratios present important limitations. Their dependence on historical accounting information restricts their ability to capture future

earnings potential and projected cash flows, both of which are critical for evaluating actual repayment capacity. In addition, cross-sector comparability is constrained by differences in capital intensity and financing structures, while macroeconomic conditions may significantly affect interpretive reliability over time. Consequently, leverage ratios should be analyzed alongside liquidity, profitability and cash flow indicators within a multidimensional financial assessment framework.

These limitations are particularly significant in the construction sector, where elevated leverage is often structural due to the capital-intensive nature of large-scale projects, extended project horizons and reliance on external financing. Accordingly, higher debt levels may not necessarily indicate financial weakness, but rather reflect industry-specific operational and investment requirements.

3.4.5 Investment Ratios

Investment ratios constitute an important category of financial indicators used to evaluate a firm's market performance, growth potential and attractiveness to investors. These measures provide insights into the relationship between corporate profitability, market valuation and shareholder returns and are therefore widely employed by investors, analysts and financial institutions in assessing corporate performance and investment prospects (Ross et al., 2019). The significance of investment analysis is particularly evident in industries characterized by high capital requirements and long-term growth strategies, such as the construction sector. In such industries, market expectations are strongly influenced by the overall financial stability, profitability, project portfolios and capacity to generate sustainable returns under varying economic conditions (OECD, 2024; ELSTAT, 2024).

Within the financial literature, favorable investment indicators are generally associated with stronger market confidence, improved shareholder value and greater growth opportunities, whereas weaker performance may reflect increased uncertainty regarding future profitability and financial sustainability (Brigham & Ehrhardt, 2022). Recent studies further emphasize the importance of investment ratios in evaluating corporate competitiveness, market perception and long-term value creation in increasingly volatile financial environments (Atrill & McLaney, 2022; Fraser & Ormiston, 2018).

3.4.5.1 Most Used Investment Ratios

Since the investment ratios are not a significant part of the following research within the framework of this dissertation, it is deemed that at this point there is no need to extend the presentation to the same level of detail as the previous categories. Purely for completeness, the most commonly used investment ratios are briefly presented below.

- **Dividend per Share (DPS):** Measures the amount of dividends distributed to shareholders for each ordinary share outstanding, indicating the direct cash return provided to investors.
- **Earnings per Share (EPS):** Represents the portion of a company's net profit attributable to each ordinary share, serving as a key indicator of profitability and shareholder value creation.
- **Price-to-Earnings Ratio (P/E):** Compares the market price per share with earnings per share, reflecting investor expectations regarding future growth and profitability.
- **Dividend Yield:** Expresses the annual dividend relative to the market price per share, indicating the percentage return generated through dividends.
- **Market-to-Book Ratio:** Compares the market value of equity with its book value, assessing how investors value the company relative to its accounting net worth.
- **Payout Ratio / Percentage of Distributed Earnings:** Measures the proportion of net earnings distributed as dividends, indicating the firm's dividend policy and earnings retention strategy.
- **Book Value per Share:** Represents the accounting value of shareholders' equity allocated to each ordinary share, reflecting the net asset backing per share.
- **Cash Flow per Share:** Indicates the operating cash flow generated per share, providing insight into the firm's capacity to generate cash independently of accounting earnings.
- **Depreciation per Share:** Measures the depreciation expense allocated to each ordinary share, often used to assess the impact of non-cash expenses on earnings.
- **Cash Flow Ratio:** Evaluates the relationship between cash flow generation and financial obligations or market valuation, reflecting liquidity strength and operational cash-generating capacity.

3.4.5.2 Importance and Limitations of Investment Ratios

Investment ratios are fundamental indicators of market valuation, shareholder value creation and investor expectations. By combining accounting performance with market perceptions, these ratios evaluate investment attractiveness, growth potential and risk profile. Indicators such as earnings per share, dividend yield and price-to-earnings ratio are widely employed in valuation analysis and investment decision-making, as they provide insight into profitability, dividend policy and market confidence. They also support comparative analysis within industries and contribute to more efficient capital allocation decisions.

However, investment ratios present several limitations. Their strong dependence on market prices makes them highly sensitive to stock market volatility and short-term investor sentiment, potentially reducing interpretive reliability. In addition, they are primarily based on historical financial information and may therefore fail to capture future performance, changing economic conditions or strategic developments. Comparability may also be affected by differences in accounting policies and managerial discretion, while broader macroeconomic, geopolitical and regulatory factors remain outside the scope of ratio analysis. Consequently, investment ratios should be interpreted alongside industry benchmarks, macroeconomic indicators and broader financial analysis frameworks.

In the construction sector, the interpretation of investment ratios requires particular caution due to cyclical demand patterns, project-based revenue recognition and high capital intensity, all of which may generate substantial fluctuations in earnings, cash flows and market valuation. As a result, investment ratios in this industry may exhibit greater volatility and lower comparability across reporting periods than in less cyclical sectors.

3.4.6 Survivability Ratios and Financial Distress Prediction

Beyond the categories of liquidity, activity, profitability and leverage ratios, survival ratios and financial distress prediction models have gained increasing importance in contemporary financial analysis. These models aim to estimate the probability of corporate financial distress or even bankruptcy by integrating multiple accounting-based and financial variables into unified predictive frameworks. Their contribution is particularly significant for investors and credit institutions, as they function as early warnings identifying potential financial instability (Altman, 2018; Agarwal & Taffler, 2008).

Survivability ratios and financial distress prediction models constitute a specialized category of financial analysis tools designed to evaluate the capability of a firm to continue operating

as and to assess the probability of financial failure or insolvency. Unlike traditional financial indicators that primarily provide a retrospective evaluation of performance, these models offer a forward-looking assessment of corporate risk by identifying early warning signals of financial deterioration (Ross et al., 2019).

Within the existing financial literature, financial distress is generally defined as a condition in which a firm encounters difficulties in meeting its financial obligations as they become due, potentially leading to liquidity shortages, debt restructuring, insolvency or even bankruptcy. In response to increasing economic uncertainty, restricted access to financing and heightened market volatility, the early identification of potential distress conditions has become particularly important for investors, creditors, auditors, financial institutions and regulatory authorities (Brigham & Ehrhardt, 2022).

The theoretical foundation of financial distress prediction is based on multivariate analytical approaches that combine indicators of liquidity, profitability, leverage and operational efficiency into composite measures of financial risk. Widely applied methodologies, including discriminant analysis and logistic regression models, aim to distinguish financially healthy firms from distressed entities through the systematic evaluation of financial statement data (Damodaran, 2023).

The relevance of survivability analysis is especially pronounced in capital-intensive and economically sensitive industries such as the construction sector, where firms are exposed to high leverage, volatile cash flows, long project cycles and substantial financing requirements. Under such conditions, factors such as declining profitability, weak liquidity positions and excessive dependence on debt are commonly associated with increased financial vulnerability and a higher probability of distress (OECD, 2024; ELSTAT, 2024).

3.4.6.1 Debt Coverage Ratio

The debt coverage ratio measures the capability of a company to meet its financial obligations through its operating performance, typically by comparing operating cash flows or earnings to total debt servicing requirements. It provides a key indicator of financial resilience, as it reflects the extent to which internally generated funds are sufficient to cover principal repayments and interest obligations. It is calculated through the following formula:

$$\text{Debt Coverage Ratio} = \frac{\text{Operations Cash Flows}}{\text{Total Liabilities}}$$

A higher value of the ratio indicates stronger debt-servicing capacity and lower default risk, suggesting that the firm is more capable of sustaining its financial commitments without resorting to further external financing or asset liquidation. Conversely, lower values may signal potential liquidity constraints and increased vulnerability to financial distress.

3.4.6.2 Financial Autonomy Ratio

The financial autonomy ratio measures the proportion of the total assets of a firm that is financed through shareholders' equity. It provides an indication of the degree of financial independence of the enterprise, reflecting the extent to which the company relies on internal funding sources rather than external debt financing. It is calculated through the following formula:

$$\text{Financial Autonomy Ratio} = \frac{\text{Total Equity}}{\text{Total Assets}}$$

A higher value of this ratio suggests greater financial autonomy, stronger capital structure stability and reduced dependence on creditors, thereby implying lower financial risk and enhanced long-term solvency. Conversely, lower values indicate increased reliance on external financing and potentially higher vulnerability to financial constraints and creditor pressure.

3.4.6.3 Cash Flow to Debt Ratio

The cash flow to debt ratio measures the extent to which the operating cash flows of a firm are sufficient to cover its total outstanding debt. It provides a direct assessment of debt-servicing capacity from a cash flow perspective, thereby offering a more reliable indicator of repayment ability than accounting earnings alone. It is calculated through the following formula:

$$\text{Cash Flow to Debt Ratio} = \frac{\text{Operations Cash Flows}}{\text{Total Debt}}$$

A higher ratio indicates stronger financial health, as it reflects the firm's ability to generate adequate cash flows to meet its debt obligations without relying on external financing or asset disposals. Conversely, lower values may signal potential liquidity constraints and an elevated risk of financial distress, particularly in periods of economic downturn or reduced operating performance.

3.4.6.4 Altman Z-Score Model

The Altman Z-Score model is widely regarded as one of the most significant tools for bankruptcy prediction in corporate finance. Even though it was first published in 1968, it still remains highly relevant in the modern financial distress prediction framework. Multiple financial ratios are combined into a single score that assesses the overall financial health of a firm and estimates the probability of financial distress.

The original Z-score that is mainly applied for publicly traded manufacturing companies is calculated through the following formula:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

Where:

- X_1 : Working Capital / Total Assets
- X_2 : Retained Earnings / Total Assets
- X_3 : EBIT / Total Assets
- X_4 : Market Value of Equity / Total Liabilities
- X_5 : Sales / Total Assets

Lower Z-score values indicate a higher probability of financial distress, whereas higher values are associated with stronger financial health and lower default risk (Altman, 2018).

The model identifies three distinct score zones as follows:

- $Z > 2.99 \rightarrow$ Low Probability of bankruptcy (Safe Zone)
- $1.81 < Z < 2.99 \rightarrow$ Grey Zone
- $Z < 1.81 \rightarrow$ High Probability of bankruptcy (Distress Zone)

The model is widely used by banks, investors and auditing firms as a practical tool for assessing corporate financial health and estimating the probability of financial distress. Its broad adoption reflects its usefulness in credit risk evaluation, investment decision-making and audit risk assessment, as it provides a systematic and quantitative framework for early detection of potential insolvency.

Acknowledging the usefulness of the model, two more variations have been developed. The Z'-score is applied for private (not publicly traded) manufacturing companies and the Z''-score is applied for non-manufacturing, service and international companies.

3.4.6.5 Springate S-Score Model

The Springate S-score model (developed by Gordon Springate in 1978) is derived from the Altman Z-score framework. It utilizes four financial ratios primarily related to liquidity and

capital efficiency to estimate whether a firm is likely to experience bankruptcy or severe financial distress. Although less widely applied at an international level, it has been extensively used in empirical research due to its simplicity and relatively strong predictive performance in specific datasets (Springate, 1978). Its practical appeal lies in its reduced complexity while maintaining reasonable classification accuracy. The model is based on linear discriminant analysis and employs a set of financial ratios to predict corporate failure. Notably, unlike Altman's original Z-score, the Springate model does not include a leverage ratio based on equity (market or book value). Instead, it emphasizes profitability and operating efficiency. It is expressed through the following function:

$$S = 1.03X_1 + 3.07 X_2 + 0.66X_3 + 0.40X_4$$

Where:

- X_1 : Working Capital / Total Assets
- X_2 : EBIT / Total Assets
- X_3 : EBT / Current Liabilities
- X_4 : Sales / Total Assets

As shown above, the model combines key indicators of profitability, liquidity and efficiency into a single composite score intended to assess the financial health of a firm. Values below the threshold value of 0.862 indicate an increased probability of bankruptcy, signaling potential financial distress and heightened default risk. Conversely, higher scores suggest stronger financial stability and a lower likelihood of business failure, reflecting more robust operational and financial performance.

3.4.6.6 Zmijewski X-Score Model

The Zmijewski X-score bankruptcy prediction model (developed by Mark Zmijewski in 1984) is based on a probit (logistic-type) regression framework and employs three core financial indicators: profitability, leverage and liquidity. It is particularly recognized for its statistical robustness and its reduced sensitivity to sample selection bias relative to earlier approaches, making it widely applicable in bankruptcy prediction studies (Zmijewski, 1984). Its methodological strength lies in its probabilistic structure, which directly estimates the likelihood of financial distress rather than classifying firms deterministically.

The model is expressed through the following function:

$$X = - 4.336 - 4.513 X_1 + 5.679 X_2 + 0.004 X_3$$

Where:

- X_1 : Net Income / Total Assets
- X_2 : Total Liabilities / Total Assets
- X_3 : Current Assets / Current Liabilities

From an interpretative standpoint, the model assigns a negative weight to profitability (X_1), implying that higher returns reduce the likelihood of financial distress, while leverage (X_2) contributes positively to the probability of distress, consistent with financial theory on debt-related risk exposure. Liquidity (X_3) plays a comparatively marginal role due to its very small coefficient, although it still contributes to capturing short-term solvency conditions. Overall, the Zmijewski model integrates these dimensions into a unified probabilistic score, where higher (positive) values indicate an increased probability of bankruptcy and lower (negative) values suggest stronger financial stability.

3.4.6.7 Ohlson O-Score Model

The Ohlson O-Score model (developed by James Ohlson in 1980) applies logistic regression techniques to estimate the probability of corporate financial distress and bankruptcy. Unlike earlier discriminant-based approaches, such as the Altman Z-Score, the model produces a continuous measure of failure risk rather than classifying firms into discrete categories of financial health or distress (Ohlson, 1980). This probabilistic framework enhances interpretability, particularly through the derivation of the p-probability, which expresses the likelihood of bankruptcy in percentage terms.

The model is expressed through the following function:

$$\text{O-Score} = -1.32 - 0.407A + 6.03B - 1.43C + 0.0757D - 1.72E - 2.37F - 1.83G + 0.285H - 0.521I$$

Where:

- **A** : logarithm of (Total Assets / GDP price index)
- **B** : Total Liabilities / Total Assets
- **C** : Working Capital / Total Assets
- **D** : Current Liabilities / Current Assets
- **E** : binary indicator (0, 1) of negative equity (if total liabilities exceeding total assets, $E = 1$, else 0).
- **F** : Net Income / Total Assets
- **G** : Operating Cash Flows / Total Liabilities

- **H** : binary indicator (0, 1) for persistent losses (if net losses occurred in both previous years, $H = 1$, else 0).
- **I** : change in Net Income $[(NI_t - NI_{t-1})/(|NI_t| + |NI_{t-1}|)]$

The **p-probability (probability of financial distress)** is derived from the O-Score through the following logistic transformation:

$$p = \frac{e^{O\text{-Score}}}{1 + e^{O\text{-Score}}}$$

This transformation converts the linear score into a bounded probability between 0 and 1, allowing the direct interpretation of the estimated likelihood of bankruptcy. In empirical applications, this feature significantly improves interpretability and comparability across firms and time periods, as results can be expressed in intuitive percentage terms.

Methodologically, the Ohlson model integrates multiple dimensions of financial condition—including profitability, liquidity, leverage, size and earnings dynamics—within a unified probabilistic framework. This reduces reliance on restrictive assumptions inherent in linear discriminant analysis and enhances empirical robustness (Ohlson, 1980).

However, while the model is widely recognized for its predictive performance in large listed firms with high-quality financial disclosures, its accuracy may vary across sectors and economic environments. In industries characterized by project-based revenues, cyclical demand and irregular cash flows – such as the construction sector – the p-probability estimates should be interpreted with caution, as structural volatility may affect the stability and calibration of predicted distress probabilities.

3.4.6.8 Probability of Default (PD) Models

Modern Probability of Default (PD) models represent the most advanced stage in financial distress prediction. These models rely on statistical techniques, econometric frameworks and, increasingly, machine learning algorithms to estimate the likelihood of default over a specified time horizon. They are widely used by banks, credit rating agencies and international financial institutions, as they incorporate both firm-specific financial indicators and macroeconomic variables (Duffie & Singleton, 2012; BIS, 2023). Their strength lies in their dynamic nature and ability to adjust to changing economic conditions.

3.4.6.9 Importance and Limitations of Financial Distress Prediction

Survivability ratios and financial distress prediction models constitute essential tools in corporate risk assessment, as they provide forward-looking insights into solvency, default risk and long-term financial sustainability. Unlike traditional ratio analysis, these models support the early identification of financial deterioration by integrating accounting-based indicators with broader predictive methodologies. Consequently, they are widely employed by investors, financial institutions, managers and regulatory bodies to support investment decisions, credit risk evaluation, strategic planning and systemic risk monitoring.

The primary contribution of financial distress prediction models lies in their capability to enhance proactive risk management through the early detection of declining liquidity, excessive leverage and weakening profitability. Their analytical value has further increased through the incorporation of macroeconomic and non-financial variables, including Environmental, Social and Governance (ESG) factors, thereby supporting more integrated and multidimensional approaches to corporate risk evaluation (Campbell et al., 2008; Altman et al., 2019).

Nevertheless, these models present important methodological limitations. Their strong dependence on historical accounting data reduces predictive reliability in rapidly changing economic environments, while differences in accounting policies and managerial discretion may impair comparability across firms and industries. Predictive accuracy may also vary significantly between sectors due to differences in capital structure, operating cycles and revenue recognition practices. Furthermore, financial distress models remain limited in their ability to anticipate extraordinary macroeconomic or geopolitical shocks.

These limitations are particularly relevant in the construction sector, where long project cycles, irregular cash flows, cyclical demand patterns and substantial reliance on external financing may distort conventional distress indicators. Project-based accounting practices and earnings volatility may therefore reduce the short-term predictive accuracy of survivability models, requiring their interpretation within a broader qualitative and industry-specific analytical framework.

4. Research Methodology

The adopted methodology constitutes a fundamental aspect while addressing any research inquiry, since it establishes the systematic procedures through which data are collected, analyzed and interpreted. The appropriate selection and application of research methods and techniques are essential for ensuring the reliability, validity and credibility of the produced results. This chapter presents the methodological framework adopted for the purposes of this dissertation. More specifically, it outlines the research aims and objectives, the overall research design, the criteria governing sample selection and data collection, as well as the analytical methods employed for the interpretation and evaluation of the findings.

While primarily based on the quantitative analysis of financial data by employing financial ratios and indicators, with the objective of drawing significant corresponding conclusions, the primary objective of the study was to identify and assess any underlying correlations between them. To achieve this, initial data were derived from published financial statements and further statistical analysis was conducted using selected variables and the calculated ratios. In addition, the principal limitations and the factors potentially affecting the interpretation and the generalizability of results are addressed. The inclusion of these considerations enhances methodological transparency and contributes to the scientific rigor and credibility of the overall research process.

4.1 Research Purpose and Research Questions

The present dissertation actually aims to investigate any relationship and potential correlations between the financial ratios and the information derived from the published financial statements of Greek construction companies. More specifically, it does not seek to re-evaluate the extent to which the well-established financial ratios reflect the financial position, profitability, liquidity and operational efficiency, but to implement a different approach intending to uncover whether structure and/or performance factors other than the usually examined sales/revenue/profit ones actually influence the resulting ratios.

The significance of this research lies in the fact that financial analysis constitutes a fundamental decision-making tool for investors, corporate management, credit institutions and other stakeholders. Understanding potentially unaddressed relationships between financial data, ratios and indicators may substantially contribute to improving the

assessment of the financial condition of companies and the development of more effective management strategies. For both academic and professional reasons, the research has been limited to examining only the leading listed Greek construction firms.

The focus of the study is to examine whether statistically significant relationships exist between financial ratios and the financial data derived from the published financial statements, beyond the obvious relationship whereby higher profitability leads to improved financial ratio values.

More specifically, the research seeks to address the following questions:

- Do the actual data derived from the published financial statements confirm the sector progress presented in existing literature?
- To what extent do internationally recognized distress prediction models accurately reflect the characteristics and specificities of Greek construction companies?
- Are there significant relationships between liquidity, activity, profitability, leverage and survivability ratios in Greek construction companies?

The investigation of these questions is deemed particularly important given that the construction industry is characterized by high capital requirements, significant reliance on debt financing and strong sensitivity to macroeconomic fluctuations. Therefore, evaluating the effectiveness of financial ratios and distress prediction models may provide valuable insights for improving financial analysis practices and supporting more informed decision-making processes.

4.2 Research Approach

The present research adopts a quantitative approach based on the calculation of financial ratios and other numerical indicators, while further examining statistical correlations among the selected variables. This methodology is considered appropriate, as it enables the systematic analysis of financial data and the derivation of comparable and objective conclusions. Selecting a quantitative approach for one suits my personal engineering background and deterministic mindset on a mainly data-driven topic. Additionally, this methodological approach is adopted in order to ensure the validity, objectivity and scientific rigor of the research process.

For the purposes of the study, primary data were collected from the published financial statements of companies operating in the Greek construction sector. The derived secondary

data included in the informational notes of the statements were also taken into account only while addressing the initial results.

Subsequently, the following key financial ratios and indicators were calculated:

- liquidity ratios
- activity ratios
- profitability ratios
- leverage ratios
- survivability and financial distress prediction indicators

Due to limited information on investment data (the information regarding share prices and distributed dividends was partial and inconclusive), the investment ratios were excluded from the study.

The initial results were sufficient to address the general assessment of financial position, performance and survivability for the examined firms.

Taking into account the particularities of the Greek construction sector, the following additional variables were calculated:

- Current Assets/Total Assets ratio and the complementary Non-Current Assets/Total Assets ratio, to examine the potential influence of asset structure
- Fixed Assets/Total Assets ratio, to examine the potential influence of investment on fixed assets. It has been established that Greek construction companies heavily rely on assets like facilities and machinery, with a preference for owning these operational assets rather than relying on long-term leasing arrangements
- Current Liabilities/Total Liabilities ratio and the complementary Non-Current Liabilities/Total Liabilities ratio, to examine the potential influence of the time structure of liabilities. In a market that depends on credit purchases, such as the construction industry, the time-wise liabilities structure may provide significant insights.
- Short-term Bank Debt/Total Bank Debt and the complementary Long-term Bank Debt/Total Bank Debt, as well as the Total Bank Debt/Total Assets. In a capital-intensive market, such as the construction one, the structure of financing through bank debt may provide significant insights.

The subsequent analysis was conducted using statistical correlation aimed at identifying potential relationships and interactions among the examined variables. In particular, the

correlation analysis was employed to assess the strength and direction of relationships between financial ratios and structure/performance-related variables. Furthermore, multivariate regression analysis with backwards elimination was employed, aiming to investigate the potential existence of any multivariate regression model that includes statistically significant variables and exhibits adequate degree of credibility and explanatory robustness.

4.3 Research Sample

The sample of the present study consists of the leading listed Greek construction companies operating in the construction and infrastructure sector. The selection of these firms was based on their significance within the Greek construction industry, their long-standing (at least throughout the research period) presence in the market and the availability of published financial data.

For the purposes of this study, data were collected from the official websites of the companies, specifically from their published annual financial statements. The extracted information includes:

- statements of financial position (balance sheets)
- income statements
- cash flow statements

The study covers the financial years 2015–2024.

In addition, data regarding the corresponding backlog (unexecuted project portfolio) were collected, as this variable could be proved relevant for assessing future activity levels and the growth prospects of the construction sector.

In the case of corporate groups, only consolidated financial statements were used in order to avoid distortions arising from intra-group transactions and accounting entries between related entities. Conversely, the financial statements of special purpose vehicles (SPVs), typically established for individual projects or joint ventures, were excluded. This decision was made to ensure consistency, comparability and data integrity across the sample.

During the data processing stage, certain financial items were aggregated into broader categories to facilitate statistical analysis and the identification of relevant independent variables. This approach was deemed necessary to ensure a homogeneous dataset and to support the effective application of statistical techniques.

It should also be noted that minor deviations in results may arise due to rounding in the primary financial data reported in published financial statements. However, such deviations remain within acceptable accounting standards and do not significantly affect the overall findings of the study.

Regarding cash flow statements, the analysis focuses only on the total amounts of:

- operation cash flows
- investing cash flows
- financing cash flows

This aggregation was adopted both to reduce data complexity and due to the limited analytical relevance of more granular cash flow subcategories for the objectives of the present research.

Finally, since the examined companies do not consistently disclose EBIT (Earnings Before Interest and Taxes) but primarily report EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization), the analysis in certain cases relies on EBITDA-based measures, which is taken into consideration when interpreting and evaluating the empirical findings.

4.4 Use of EBITDA Instead of EBIT in the Analysis of the Financial Statements

In the financial statements within the construction industry, EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) is frequently adopted as an alternative to EBIT (Earnings Before Interest and Taxes), largely due to the sector-specific accounting characteristics and variations in disclosure practices among companies. From a theoretical point of view, EBIT reflects operating profitability prior to the deduction of interest expenses and taxation and is therefore considered a fundamental measure of core business performance (Ross et al., 2019). EBITDA extends this approach by additionally excluding depreciation and amortization, thereby approximating the operating performance before any non-cash accounting adjustments are recognized (Brigham & Houston, 2022). Due to the capital-intensive nature of construction activities, EBITDA is frequently considered more informative regarding the short-term operational cash-generating capacity of a company (White et al., 2020).

Construction companies typically operate through long-term projects that require substantial capital investment, involve complex contractual arrangements and generate significant non-cash accounting charges (particularly depreciation associated with heavy machinery, equipment and infrastructure assets). In this context, EBITDA is widely regarded as a more suitable indicator of operational performance, because it excludes depreciation and amortization expenses, thereby offering a clearer representation of a firm's capacity to generate earnings from its core business activities. Listed construction firms commonly disclose EBITDA as a key performance indicator in annual financial statements and investor communications, reflecting its extensive use by investors, financial institutions, analysts and credit rating agencies. In addition, EBITDA enhances the cross-sectional comparability by mitigating distortions arising from differences in depreciation methods, asset age and financing structures among firms (Gitman & Zutter, 2019). On the other hand, EBIT incorporates depreciation and amortization charges, which, although important from an accounting perspective, may reduce comparability between firms with differing asset structures, investment policies, or financing arrangements. This issue is particularly pronounced in the construction sector, where substantial differences may exist between firms that own productive assets and those that rely extensively on leasing arrangements. Consequently, EBITDA facilitates a more consistent assessment of operational efficiency across companies operating under heterogeneous capital structures and accounting practices (Gitman & Zutter, 2019).

Nevertheless, the use of EBITDA in financial analysis is subject to important limitations. Although often interpreted as a proxy for operating cash flow, EBITDA does not constitute a direct measure of liquidity, as it excludes changes in working capital, capital expenditure requirements, financing obligations and debt servicing costs. Consequently, exclusive reliance on EBITDA may result in an overestimation of a firm's actual economic performance and financial resilience, particularly within capital-intensive industries such as construction (Damodaran, 2023). Furthermore, unlike EBIT, which is more directly derived from standardized income statement reporting, EBITDA calculations may vary considerably across firms due to differing adjustments and managerial interpretations. The absence of a universally standardized methodology may therefore impair the reliability and comparability of empirical findings (Fraser & Ormiston, 2018).

In this dissertation, the adoption of EBITDA instead of EBIT is primarily justified by empirical considerations related to data availability and consistency. During the collection

and examination of financial statements for the sampled Greek construction companies, it became evident that EBIT figures were either inconsistently disclosed or entirely omitted in several cases, whereas EBITDA was reported more systematically. The use of EBITDA therefore ensures greater uniformity, completeness and comparability within the dataset, thereby facilitating statistical analysis and the investigation of relationships between financial ratios and indicators of financial distress.

Accordingly, EBITDA is employed in this study as the principal measure of operating performance and financial efficiency, while recognizing its inherent conceptual and methodological limitations. Its interpretation is therefore undertaken with caution and supplemented, where appropriate, by additional profitability, leverage and cash flow indicators in order to provide a more comprehensive evaluation of corporate financial health and sustainability. Overall, the application of EBITDA in the analysis of construction firms constitutes both a practical and academically supported approach, particularly in such research settings where EBIT data are not consistently available across the examined sample.

5. Research Results – Conclusions

The empirical analysis of Greek listed construction companies, through the application of financial ratios and financial distress prediction models, has revealed important findings regarding their financial condition, risk structure and overall sustainability. The combined use of traditional financial ratios (liquidity, profitability and leverage) and financial distress prediction models (Altman Z-Score, Ohlson O-Score and P-probability, Zmijewski X-Score and Springate S-Score) enabled a holistic assessment of the financial position of companies within the sector.

5.1 Progress of the Studied Companies throughout the Examined Period

The initial overview of the research results provides compelling evidence that the Greek construction sector is characterized by heavy fragmentation and limited capital concentration. This indicates that the general assessments regarding the sector progress and financial figures are not primarily driven by the performance of the leading listed construction companies, but rather by the aggregate contribution of smaller companies.

Particularly, the progress of the primary financial figures of the examined companies (turnover, net results of financial years, operating cash flows) does not coincide with the reported progress of the whole sector (see Tables A-1 to A-3 and Figures A-1 to A-3 in Appendix A). This confirms the important conclusion that the aggregate performance of the sector as a whole cannot be regarded as a reliable or sufficiently representative benchmark for evaluating the performance of individual firms, given the substantial heterogeneity that characterizes firm-level outcomes within the same industry (Singh, 2022). In other words, a deductive approach to the assessment of financial performance cannot be applied specifically in the Greek construction sector.

Furthermore, observing the absolute financial figures further corroborates the pronounced heterogeneity even among the listed companies, attributable both to disparities in their organizational sizes and to differences in the magnitude of their turnover. The major conglomerates (namely ΓΕΚ ΤΕΡΝΑ Α.Ε., J&P ΑΒΑΞ Α.Ε. and ΙΝΤΡΑΚΑΤ Α.Ε.) prove that they are in a completely different league from the rest, with ΓΕΚ ΤΕΡΝΑ Α.Ε. emerging as the clear market leader.

5.2 Application of Financial Distress Prediction Models

The actual application of the financial distress prediction models was expected to produce results similar to the ones already drawn correspondingly to the general business sectors, both nationally and internationally. Especially while examining the survivability of the Greek construction leader companies, the initial unstated hypothesis was that the results would actually coincide with the reported progress throughout the examined time period. In other words, by applying the widely accepted and used models, the predictions were expected to be verified

The actual research results greatly differ from that initial hypothesis. The application of the models has produced values and prediction that in the majority of the cases (if not almost all of them) contradict the inherent and fundamental credibility of the models. This not only generates doubts regarding the actual values of the predictive models for assessing and evaluating the Greek listed construction companies, but also shake the foundations of their validity as methods to be even considered for application.

The following presentation of the corresponding results per examined company is accompanied with reporting of key financial information that provide a brief insight of the company performance. This is done in order for the assessed accuracy to be briefly justified.

5.2.1 Application on ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

The following Table 5-1 presents the results of the application of the selected financial distress prediction models on ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε..

ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,659	0,693	0,706	0,592	0,640	0,621	0,643	0,503	0,504	0,529
Total Bank Debt/Total Assets	0,543	0,574	0,588	0,489	0,531	0,408	0,381	0,229	0,214	0,225
Turnover/Total Assets	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,005	0,012
Backlog/Total Assets	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
EBITDA/Total Assets	0,009	-0,023	0,005	0,156	-0,026	0,062	0,004	0,097	-0,018	-0,004
Net Earnings/Total Assets	-0,085	-0,051	-0,015	0,133	-0,077	-0,002	-0,010	0,094	-0,023	-0,015
Operational Cash Flows/Total Assets	0,138	-0,017	-0,032	0,122	-0,055	0,266	0,023	0,085	-0,026	0,010
Total Cash Flows/Total Assets	0,035	-0,011	-0,019	0,050	-0,046	0,105	0,016	-0,106	-0,044	0,002
Altman Z-Score	0,340	0,222	0,321	1,028	0,122	0,609	0,414	1,294	0,698	0,655
Springate S-Score	0,186	0,007	0,130	0,927	-0,019	0,346	0,081	0,664	-0,150	0,091
Zmijewski X-Score	-0,204	-0,162	-0,253	-1,573	-0,349	-0,797	-0,633	-1,900	-1,364	-1,261
Ohlson P-Probability	64,55%	63,22%	67,38%	20,46%	74,59%	30,92%	71,94%	20,23%	59,91%	45,93%

Table 5-1: Application of Financial Distress Models on ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

The application of the models on a company that consistently reported zero turnover and zero backlog throughout the examined period has resulted in highly inconsistent results.

The Altman Z-Score model places ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε. in the safe (green) zone, which, although unexpected, is consistent with reality, since the company has not halted operations. This also seems to be the case with the application of the Zmijewski X-Score Model. On the other hand, the Springate S-Score model consistently places the company in the distress zone, with the exception of year 2018 (during which all the income metrics have substantially positive values). The Ohlson P-Probability model produces varying and inconsistent results.

5.2.2 Application on Ο ΚΕΚΡΟΥ Α.Ε.

The following Table 5-2 presents the results of the application of the selected financial distress prediction models on Ο ΚΕΚΡΟΥ Α.Ε..

Ο ΚΕΚΡΟΥ Α.Ε.										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,676	0,759	0,520	0,542	0,558	0,593	0,667	0,376	0,393	0,303
Total Bank Debt/Total Assets	0,407	0,474	0,322	0,394	0,443	0,539	0,607	0,236	0,249	0,142
Turnover/Total Assets	0,000	0,001	0,001	0,001	0,001	0,002	0,001	0,655	0,020	0,227
Backlog/Total Assets	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
EBITDA/Total Assets	-0,065	-0,040	-0,042	-0,004	-0,050	0,024	-0,070	0,623	0,024	-0,059
Net Earnings/Total Assets	-0,126	-0,114	-0,080	-0,249	-0,081	-0,007	-0,094	0,496	0,014	-0,057
Operational Cash Flows/Total Assets	-0,053	-0,032	-0,093	-0,041	-0,149	-0,102	-0,014	-0,027	-0,021	-0,061
Total Cash Flows/Total Assets	-0,082	-0,016	0,186	-0,117	-0,155	0,048	0,016	-0,031	-0,003	0,010
Altman Z-Score	0,139	0,400	1,693	2,845	5,634	5,225	3,385	5,940	1,860	4,389
Springate S-Score	-0,690	-0,705	-0,340	0,024	-0,744	0,325	-0,580	34,647	-0,007	-1,244
Zmijewski X-Score	0,070	0,488	-1,015	-0,129	-0,797	-0,899	-0,121	-4,434	-2,165	-2,330
Ohlson P-Probability	80,06%	94,78%	60,32%	67,72%	61,43%	54,51%	87,42%	7,99%	56,81%	35,56%

Table 5-2: Application of Financial Distress Models on Ο ΚΕΚΡΟΥ Α.Ε.

Ο ΚΕΚΡΟΥ Α.Ε. is another company that consistently reported low turnover values and zero backlog throughout the examined period. Despite this, a high degree of inconsistency is observed in the application of all the distress prediction models. With the exception of the Zmijewski X-Score model, the actual survival of the company is not captured by the models. It is important to note that in the case of the year 2022 (all-time high in turnover and significantly reduced liabilities and debt) the Altman Z-Score continues placing the company in the distress zone, while the rest of the models suggest a lower probability of financial distress.

5.2.3 Application on ΕΚΤΕΡ Α.Ε.

The following Table 5-3 presents the results of the application of the selected financial distress prediction models on ΕΚΤΕΡ Α.Ε..

EKTEP A.E.										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,270	0,198	0,197	0,307	0,251	0,288	0,244	0,481	0,476	0,517
Total Bank Debt/Total Assets	0,000	0,000	0,000	0,000	0,104	0,129	0,116	0,153	0,043	0,161
Turnover/Total Assets	0,499	0,659	0,346	0,786	0,836	0,623	0,857	0,644	1,546	0,945
Backlog/Total Assets	0,620	0,209	0,578	0,490	0,435	0,807	1,062	2,208	2,006	1,086
EBITDA/Total Assets	0,025	0,026	-0,056	0,060	-0,107	0,016	0,069	0,043	0,235	0,155
Net Earnings/Total Assets	0,014	0,004	-0,055	0,018	-0,067	-0,015	0,038	0,016	0,176	0,113
Operational Cash Flows/Total Assets	0,008	-0,038	-0,093	0,078	-0,335	0,016	0,027	0,144	0,248	0,000
Total Cash Flows/Total Assets	-0,123	-0,076	-0,126	0,067	-0,263	0,050	0,017	0,181	0,127	-0,063
Altman Z-Score	1,423	1,834	1,483	2,195	1,981	1,884	2,951	1,843	4,075	2,427
Springate S-Score	0,681	0,797	0,064	0,937	0,030	0,587	1,274	0,793	2,000	1,338
Zmijewski X-Score	-2,852	-3,217	-2,955	-2,668	-2,597	-2,617	-3,103	-1,670	-2,416	-1,902
Ohlson P-Probability	4,66%	9,80%	27,39%	4,14%	68,39%	8,60%	4,28%	21,50%	6,36%	29,74%

Table 5-3: Application of Financial Distress Models on EKTEP A.E.

The case of EKTEP A.E. constitutes a brief turn in the credibility of the models. A general notion of sufficiency is observed that seems consistent with reality. Despite individual fluctuations, all the models confirm the high survivability of the company. The overall fluctuations of the Altman Z-Score (oscillating between the green and the grey zone) and the Springate S-Score induce considerations. An important observation is the observed consistency of the Ohlson P-Probability model that seems to follow with some degree of accuracy the reported performance of the company, especially the severe deterioration reported in the year 2019.

5.2.4 Application on ΔOMIKH KPHTHΣ A.E.

The following Table 5-4 presents the results of the application of the selected financial distress prediction models on ΔOMIKH KPHTHΣ A.E..

ΔOMIKH KPHTHΣ A.E.										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,647	0,602	0,630	0,629	0,609	0,597	0,559	0,561	0,578	0,534
Total Bank Debt/Total Assets	0,221	0,267	0,311	0,336	0,323	0,286	0,254	0,238	0,233	0,240
Turnover/Total Assets	0,165	0,407	0,303	0,287	0,347	0,459	0,478	0,485	0,675	0,551
Backlog/Total Assets	0,830	0,861	0,496	0,626	0,546	0,478	0,466	1,361	1,213	1,325
EBITDA/Total Assets	0,018	0,036	-0,004	0,038	0,051	0,086	0,075	0,080	0,090	0,055
Net Earnings/Total Assets	-0,006	-0,015	-0,071	0,000	0,020	0,045	0,051	0,038	0,061	0,003
Operational Cash Flows/Total Assets	-0,020	-0,126	-0,004	-0,029	-0,006	0,039	-0,009	-0,003	0,007	-0,016
Total Cash Flows/Total Assets	-0,009	-0,110	0,004	0,027	-0,006	0,027	-0,039	0,004	0,042	-0,038
Altman Z-Score	0,278	0,436	0,192	0,429	0,542	0,928	1,414	1,568	2,824	2,616
Springate S-Score	0,037	0,056	-0,204	0,117	0,247	0,491	0,741	0,770	0,866	0,512
Zmijewski X-Score	-0,630	-0,845	-0,437	-0,762	-0,966	-1,147	-1,385	-1,315	-1,327	-1,312
Ohlson P-Probability	56,34%	75,70%	80,78%	53,47%	46,88%	53,12%	48,16%	48,44%	44,34%	60,56%

Table 5-4: Application of Financial Distress Models on ΔOMIKH KPHTHΣ A.E.

The results of the application of the distress prediction models on ΔOMIKH KPHTHΣ A.E. once again raise significant doubts regarding the credibility of the modes as a whole

methodological framework. While the Altman Z-Score and the Zmijewski X-Score coincide in capturing the reality of the high survivability chances of the company, the Springate S-Score consistently produces high odds of financial distress, while Ohlson P-Probability produces split results. After the most promising year (2023), all the models agree in reporting a substantially improved position of the firm.

5.2.5 Application on BIOTEP A.E.

The following Table 5-5 presents the results of the application of the selected financial distress prediction models on BIOTEP A.E..

	BIOTEP A.E.									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	1,355	1,593	1,795	1,980	2,064	2,021	2,143	2,252	2,456	3,073
Total Bank Debt/Total Assets	1,168	1,361	1,516	1,651	1,693	1,837	1,928	2,032	2,231	2,834
Turnover/Total Assets	0,012	0,006	0,002	0,002	0,003	0,003	0,003	0,003	0,006	0,019
Backlog/Total Assets	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
EBITDA/Total Assets	0,000	0,000	-0,057	-0,065	-0,027	0,197	0,002	0,002	-0,022	-0,167
Net Earnings/Total Assets	-0,101	-0,203	-0,195	-0,152	-0,102	0,067	-0,104	-0,114	-0,145	-0,314
Operational Cash Flows/Total Assets	-0,088	-0,079	-0,155	-0,081	-0,073	-0,106	-0,075	-0,111	-0,071	-0,176
Total Cash Flows/Total Assets	-0,005	0,001	-0,001	0,000	0,000	0,002	0,003	0,001	0,034	-0,037
Altman Z-Score	-1,279	-1,702	-2,121	-2,328	-2,231	-1,202	-2,237	-2,387	-2,766	-4,139
Springate S-Score	-1,038	-1,314	-1,686	-1,894	-1,840	-1,050	-1,839	-1,956	-2,258	-3,305
Zmijewski X-Score	3,819	5,626	6,742	7,593	7,848	6,838	8,303	8,966	10,268	14,533
Ohlson P-Probability	99,05%	99,90%	99,98%	99,99%	100,00%	99,99%	100,00%	100,00%	100,00%	100,00%

Table 5-5: Application of Financial Distress Models on BIOTEP A.E.

BIOTEP A.E. is a case of significant importance as far as the overall credibility across the financial distress models is concerned. Before anything else, the total absence of any construction backlog has to be mentioned, as well as the fact that the overall income metrics appear significantly low. Nonetheless, the application of the Altman Z-Score produces high chances of survivability, which is consistent with the reported reality, since BIOTEP A.E. has not halted its activities throughout the examined time period. On the other hand, the rest of the models seem to coincide between them and to account for the reported deteriorated operations by placing the company in dire potential distress state. The Ohlson P-Probability model goes so far as to present financial distress as a certainty, by assigning corresponding probabilities higher than 99%.

5.2.6 Application on ΓΕΚ ΤΕΡΝΑ Α.Ε.

The following Table 5-6 presents the results of the application of the selected financial distress prediction models on ΓΕΚ ΤΕΡΝΑ Α.Ε..

ΓΕΚ ΤΕΠΝΑ Α.Ε.										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,784	0,806	0,812	0,818	0,822	0,822	0,819	0,801	0,789	0,789
Total Bank Debt/Total Assets	0,292	0,327	0,419	0,460	0,470	0,523	0,539	0,498	0,498	0,573
Turnover/Total Assets	0,372	0,377	0,290	0,350	0,268	0,192	0,238	0,659	0,537	0,387
Backlog/Total Assets	1,062	0,806	0,391	0,399	0,385	0,345	0,519	0,485	0,462	0,489
EBITDA/Total Assets	0,059	0,082	0,068	0,070	0,066	0,052	0,067	0,111	0,068	0,048
Net Earnings/Total Assets	-0,0001	0,016	0,034	0,007	0,011	0,011	0,017	0,054	0,028	0,098
Operational Cash Flows/Total Assets	0,0671	0,1009	0,0019	0,0241	0,0553	0,0682	0,0652	0,0408	0,0388	0,0509
Total Cash Flows/Total Assets	0,0027	0,0820	0,0067	-0,0302	0,0165	0,1119	0,0530	0,0210	-0,0300	0,0245
Altman Z-Score	0,756	0,890	0,712	0,766	0,733	0,764	0,969	1,582	1,312	1,091
Springate S-Score	0,467	0,604	0,471	0,478	0,462	0,503	0,691	1,010	0,809	0,524
Zmijewski X-Score	0,125	0,176	0,131	0,282	0,290	0,287	0,246	-0,024	0,027	-0,293
Ohlson P-Probability	40,26%	39,22%	60,18%	67,32%	54,79%	57,62%	52,66%	43,72%	55,44%	40,06%

Table 5-6: Application of Financial Distress Models on ΓΕΚ ΤΕΠΝΑ Α.Ε.

ΓΕΚ ΤΕΠΝΑ Α.Ε. is the leading Greek construction company (see Tables A-1 to A-3 and Figures A-1 to A-3 in Appendix A) with significant turnover, backlog and reported income metrics. As an initial result, the fact that the Altman Z-Score model places the company away from the distress zone and consistently in the safe (green) area of values comes as no surprise. On the other hand, the rest of the models give assessments contradicting to the aforementioned, as well as to the reality, by placing the company in potential distress almost throughout the whole examined time period. The only exception is the year 2022, when all the models coincide on the prosperous prospects of the firm. This could be attributed to the high turnover (the highest during the examined period), the reduction of backlog (meaning the completion of projects) and the reduction in liabilities and debt. It also has to be noted that the year 2022 is characterized by the highest reported EBITDA and an important increase of Net Earnings. Despite the overall inconsistencies, these specific observations can attest to a degree of credibility for the financial distress prediction models.

5.2.7 Application on J&P ΑΒΑΞ Α.Ε.

The following Table 5-7 presents the results of the application of the selected financial distress prediction models on J&P ΑΒΑΞ Α.Ε..

J&P ΑΒΑΞ Α.Ε. is another major company in the Greek construction sector. Throughout the examined period, it has demonstrated high backlog values and significant reported EBITDA, thus proving a consistent presence in the national construction activity. Despite that the reported cashflow and the subsequent net earnings have been characterized by a

certain degree of volatility ranging between positive and negative values. The application of the financial distress models uncovers significant inconsistencies among them.

	J&P ABAΞ A.E.									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,865	0,911	0,911	0,921	0,949	0,924	0,908	0,856	0,867	0,872
Total Bank Debt/Total Assets	0,451	0,438	0,479	0,533	0,355	0,460	0,370	0,285	0,216	0,229
Turnover/Total Assets	0,348	0,415	0,544	0,482	0,375	0,382	0,495	0,374	0,377	0,530
Backlog/Total Assets	1,220	1,303	0,994	0,896	0,847	0,826	1,156	1,729	2,533	2,351
EBITDA/Total Assets	0,020	0,038	0,040	0,044	0,038	0,051	0,043	0,054	0,051	0,086
Net Earnings/Total Assets	-0,029	-0,033	-0,009	-0,024	-0,028	0,005	-0,010	0,037	0,009	0,025
Operational Cash Flows/Total Assets	-0,012	-0,017	-0,026	-0,017	0,065	-0,058	0,042	-0,013	0,051	-0,030
Total Cash Flows/Total Assets	0,018	-0,014	-0,010	-0,007	0,002	-0,030	0,027	-0,018	-0,010	-0,011
Altman Z-Score	0,526	0,597	0,784	0,661	0,218	0,691	0,621	0,621	0,814	1,165
Springate S-Score	0,321	0,301	0,409	0,357	0,030	0,377	0,253	0,290	0,405	0,681
Zmijewski X-Score	0,709	0,993	0,883	1,007	1,183	0,893	0,869	0,362	0,554	0,509
Ohlson P-Probability	72,46%	80,04%	78,57%	84,50%	87,93%	77,23%	90,16%	70,11%	81,37%	72,13%

Table 5-7: Application of Financial Distress Models on J&P ABAΞ A.E.

The Altman Z-Score consistently places J&P ABAΞ A.E. in the safe (green) zone, attesting the high survivability chances that have been verified throughout the examined time period. On the other hand, the rest of the models indicate a consistently high chance of financial distress. Not even the observed improvement of the turnover, backlog and EBITDA metrics in the most recent years are enough to shift the imminent financial failure predictions given by the Springate S-Score, the Zmijewski X-Score and the Ohlson P-Probability. This could be attributed to the high volatility represented in the reported overall income metrics.

5.2.8 Application on INTPAKAT A.E.

The following Table 5-8 presents the results of the application of the selected financial distress prediction models on INTPAKAT A.E..

	INTPAKAT A.E.									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Liabilities/Total Assets	0,793	0,827	0,804	0,807	0,780	0,836	0,886	0,858	0,887	0,886
Total Bank Debt/Total Assets	0,353	0,344	0,325	0,227	0,255	0,276	0,386	0,359	0,174	0,166
Turnover/Total Assets	0,499	0,634	0,448	0,657	0,908	0,543	0,588	0,529	0,289	0,830
Backlog/Total Assets	0,932	0,601	1,450	1,245	1,192	1,185	1,522	1,877	1,612	2,275
EBITDA/Total Assets	0,043	0,043	0,030	0,028	0,050	0,005	-0,015	-0,010	0,010	0,055
Net Earnings/Total Assets	-0,004	-0,023	-0,024	0,028	0,004	-0,052	-0,075	-0,076	-0,001	0,001
Operational Cash Flows/Total Assets	-0,044	0,029	0,087	-0,109	0,003	0,036	-0,062	0,035	0,070	0,028
Total Cash Flows/Total Assets	0,019	-0,060	0,084	-0,086	-0,009	0,011	0,008	0,023	0,072	-0,012
Altman Z-Score	0,712	0,727	0,652	0,964	1,211	0,535	0,675	0,459	0,683	1,368
Springate S-Score	0,365	0,337	0,314	0,447	0,534	0,147	0,080	0,003	0,158	0,503
Zmijewski X-Score	0,193	0,468	0,342	0,125	0,080	0,651	1,036	0,885	0,710	0,693
Ohlson P-Probability	69,12%	81,84%	74,06%	61,62%	76,52%	88,77%	90,01%	86,53%	70,82%	71,57%

Table 5-8: Application of Financial Distress Models on INTPAKAT A.E.

Last but not least, INTPAKAT A.E. representing the construction part of activities attributed to the Greek ΑΚΤΩΡ conglomerate further attests to the observed inconsistency of predictions among the established and used in this study models. Once again, the Altman Z-Score model evicts any doubt regarding the survivability of the company. Same as with the rest of the leading Greek construction companies, the other employed models produce result that place the company in the potential financial distress zone. It has to be mentioned that the consistently high backlog values do not translate themselves in actual high income metric values.

5.2.9 Overall Assessment of the Financial Distress Prediction Models

The aforementioned application of the financial distress prediction models on the leading listed Greek construction companies indicates a significant degree of inconsistency in the produced results. These inconsistencies give rise to doubts regarding their validity when applied to this specific sector within the constraints of the Greek national sector.

The overall application seems to point towards the primary conclusion that only the Altman Z-Score model produces results that are actually verified by the activity reality. The oldest model rises as the most credible one, despite individual inconsistencies that can be attributed to the volatile nature of the Greek construction sector conditions. It has to be noted that the cases where the Altman Z-Score model produces high chances of financial distress are characterized by low turnover combined with high liabilities values. On the other hand, in the cases where high liabilities and/or bank debt are accompanied by significant backlog (especially the year before) and enhanced reported turnover and EBITDA, the Altman Z-Score model produces positive survivability assessments. Another important detail that has to be explicitly mentioned is the fact that the utilized version of the model has been developed specifically for publicly traded manufacturing companies. This exact fact further strengthens the validity of the Altman Z-Score for describing the selected listed construction firms.

As far as the other models are concerned, the general notion seems to be that their capability to produce credible results is limited. To avoid any misinterpretations, the reduced credibility is assessed as compared to the already known posterior corporate conditions. In other words, the established maintained activity of the examined companies disproves the predictions of the utilized models. This should not be the general case, since every model

should be evaluated upon the validity of the overall framework, but it certainly creates second thoughts regarding their potential application in real-life decision making.

In further defense of the examined financial distress prediction models, it has to be noted that all the selected companies verify the fact that the Greek construction sector is a financial environment characterized by high volatility (the reported income metrics demonstrate values ranging between profits and losses) and significant capital need intensity (all of the selected companies report high values of liabilities and bank debt). In this context, producing consistently positive predictions could be an indication of overvaluing incomes while disregarding the potential risks that accompany high degree of liabilities.

5.3 Correlation Study

The amplitude of financial ratios across the established categories naturally prompts inquiry into whether meaningful correlations exist among them. While extant literature consistently documents that profitability-related variables – such as turnover, sales, net income and EBITDA – exhibit positive associations with performance-oriented ratios (e.g. return on assets and return on equity), such well-established relationships do not constitute the focus of the present analysis (Brigham & Ehrhardt, 2021; Damodaran, 2023). Instead, the primary objective of this study is to examine the presence of less intuitive, non-obvious correlations between the financial ratios. In doing so, the study seeks to contribute to the literature on financial interdependence and ratio analysis by identifying latent structural linkages that may not be captured through conventional interpretative frameworks (Hillier et al., 2022; Penman, 2024).

Furthermore, the previous application of the financial distress models has introduced considerations as to whether the financial ratios could be correlated with the financial distress predictions. Given the doubts that have arisen regarding the validity and credibility of the established financial distress prediction models, potential correlations between financial ratios and these predictions may lead to an assessment paradigm that can avoid the identified uncertainties.

Due to the sheer quantity of the variables assessed (financial ratios, financial distress prediction indicators, additional variables), the correlation tables are presented in Appendix B and are only mentioned at this point as follows:

- Table B-1: Correlations Table for ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

- Table B-2: Correlations Table for Ο ΚΕΚΡΟΨ Α.Ε.
- Table B-3: Correlations Table for ΕΚΤΕΡ Α.Ε.
- Table B-4: Correlations Table for ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.
- Table B-5: Correlations Table for ΒΙΟΤΕΡ Α.Ε.
- Table B-6: Correlations Table for ΓΕΚ ΤΕΡΝΑ Α.Ε.
- Table B-7: Correlations Table for J&P ΑΒΑΞ Α.Ε.
- Table B-8: Correlations Table for ΙΝΤΡΑΚΑΤ Α.Ε.
- Table B-9: Aggregate Correlations Table

5.3.1 Correlations Within the Same Company

Overall research into the existence of correlations among financial ratios, conducted through a longitudinal analysis of each company over the examined time period, did not yield any significant results (see Tables B-1 to B-8). The strong correlations observed between ratios constructed from identical or overlapping underlying variables are not considered substantively meaningful and therefore do not warrant special mention nor further investigation. The repetition of such mechanically induced relationships does not contribute additional explanatory value, as it is already established that correlations arising from shared computational components are not of analytical significance.

For the sake of completeness, the most prominent recurring correlations are stated as follows:

- The Current Ratio is strongly correlated with the Quick Ratio, since both ratios mainly compare current assets (or part of them) to current liabilities to assess the liquidity of a company.
- The Return on Assets (ROA) is strongly correlated with the Return on Equity (ROE), since both assess profitability by examining the company net earnings. It is important to remember that by applying leverage through the DuPont analysis, the ROA is mathematically linked to the ROE ($ROE = ROA \times \text{Leverage}$).
- There is strong correlation between the Debt Ratio, the Debt to Equity Ratio, the Financial Leverage Ratio and the Financial Autonomy Ratio. These ratios are not independent between the, since the same variables (Assets, Equity and Debt) are used to calculate them (even with different formulas).

- The Cash Flow to Debt Ratio is strongly correlated with the Debt Coverage Ratio, since they both use different expressions of income to calculate the capability of a company to meet its debt obligations.

A more intriguing case arises by the fact that limited correlations exist between the financial distress indicators and other financial ratios, as well as between them. These correlations are existent, even though their repeatability across the sample companies is limited. The identified correlations are the following:

- There seems to be some extent of correlation between the Altman Z-Score and the Springate S-Score. This is more or less expected, since the Springate model was developed as an evolution and a partial reformulation of the earlier Altman model. Furthermore, both models intend to predict the financial distress probability by applying multiple discriminant analysis (MDA), while at the same time utilize overlapping financial indicators as variables. Actually, the most significant difference between the models is the weight attributed to the utilized liquidity, profitability and activity variables.
- The Springate S-Score and the Zmijewski X-Score seem to have a degree of correlation to the Return on Assets (ROA) and the Return on Equity (ROE) ratios. This is more or less expected, since profitability is a key factor for the survivability of every company. A company that is improving its returns (ROA and ROE) is expected to move away from the distress zone of any financial distress prediction model.
- The Zmijewski X-Score seems to have a degree of correlation to the Debt Ratio and the Debt to Equity ratio. This indicates that the model is inherently prone to place significant emphasis on financial leverage as the main distress risk factor.

5.3.2 Correlations Across the Sample of Companies

When the examination is extended across the full sample of selected companies (see Table B-9), the presence of the self-explanatory correlations among liquidity, profitability and leverage ratios remains evident. As expected, such correlations are independent of the sample size and the amount of data examined, since they are inherently attributed to the nature of the ratios and indicators.

The most important observation is the fact that the strong correlation between the Zmijewski X-Score and leverage ratios is verified by the across-sample analysis. This reinforces the suggestion that the Zmijewski model relies heavily and places significant emphasis on the financial distress risk stemming from increased leverage.

Finally, the correlation analysis across the entire sample of selected companies weakens the hypothesis that the financial distress prediction models should exhibit significant correlations among themselves. Only the Altman and the Zmijewski models seem to correlate to some extent, exhibiting a correlation coefficient of -0.82. This opposite (negative) correlation is readily explained, considering the fact that distress resilience is represented by high (positive) Z-Score values and algebraically low (negative) X-Score values. The absence of a general correlation among the financial distress prediction models is consistent with the empirical findings obtained from their application to the selected companies.

5.4 Multivariate Regression Analysis

The multivariate regression analysis was conducted by applying the principle of backwards elimination. In other words, after establishing the selected dependent variables, the procedure included repeated regression trials with elimination of statistically insignificant variables, until the final model version included only statistically significant elements. Particular emphasis was placed in the statistic significance of both the regression model (by achieving comparatively high F statistic value and Significance $F < 0.05$ or lower) and the included variables (by only including the ones with P-value < 0.05). During the final assessment of the resulting regression model, both the R Square values (proportion of the variance in the response variable that can be explained by the explanatory variables) and the Standard Error values (average distance that the observed values fall from the regression line) were examined.

5.4.1 Multivariate Regression For Altman Z-Score

Since the Altman Z-Score was deemed to be the most credible and accurate among the examined financial distress prediction models, the first regression trial was executing with it as the dependent variable. The results of the repeated trials after the backwards elimination can be seen in the following Table 5-9.

Altman Z-Score Regression Results

Regression Statistics	
Multiple R	0,921807094
R Square	0,849728318
Adjusted R Square	0,830407674
Standard Error	0,706339137
Sample Size	80

ANOVA (Analysis of Variance)					
	df	SS	MS	F	Significance F
Regression	9	197,4820043	21,94244492	43,98032925	2,418E-25
Residual	70	34,92404834	0,498914976		
Total	79	232,4060526			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4,085655907	0,377513799	10,82253395	0,000000000	3,332728376	4,838583437
Cash Ratio	0,305281815	0,108425429	2,815592418	0,006319229	0,089034116	0,521529514
Asset Turnover Ratio	1,315554564	0,447089112	2,942488489	0,004412709	0,423863448	2,20724568
Return on Assets (ROA)	2,905396977	1,082227507	2,684645287	0,009057219	0,746962273	5,06383168
Debt Ratio	-3,818996989	0,844220429	-4,523696485	0,000024195	-5,502741544	-2,135252434
Current Assets/Total Assets	-2,027137843	0,714014853	-2,839069571	0,005917493	-3,451195564	-0,603080122
Fixed Assets/Total Assets	-1,314664822	0,388726779	-3,381976474	0,001181135	-2,089955936	-0,539373707
Current Liabilities/Total Liabilities	-1,351982322	0,4645217	-2,910482591	0,004835588	-2,27844164	-0,425523003
Total Bank Debt/Total Assets	2,229977882	0,875095778	2,548267216	0,013022728	0,484654386	3,975301379
Backlog/Total Assets	0,49568602	0,24383678	2,032859934	0,045860952	0,009368897	0,982003142

Table 5-9: Regression Model on Altman Z-Score

While exhibiting a high number (nine) of statistically significant ($P\text{-value} < 0.05$) independent variables with ranging coefficients and satisfactory values of both R Square (84.97% of the variation is explained by the remaining variables) and Adjusted R Square (insignificant penalization due to the amount of predictor variables) values, the resulting model fails to emerge as credible due to its relatively high Standard Error value.

The variety of the variables (ranging well across the spectrum of liquidity, activity, profitability and leverage ratios, as well as the sector-specific variables) and the absolute value proximity of the regression coefficients demonstrate a well-versed and balanced regression model. Unfortunately, a Standard Error of 0.7 is unacceptably high when considering the absolute values that constitute the zone (safe – grey – distress) limits of the Altman Z-Score distress prediction model.

5.4.2 Multivariate Regression For Altman Z-Score (Year +1)

Following on the first regression attempt, the next selected dependent variable was the Altman Z-Score of the year following the one to which the values of the dependent variables correspond. In other words, what was attempted was the projection of the regression model one year into the future. The results of the repeated trials after the backwards elimination can be seen in the following Table 5-10.

Altman Z-Score Regression Results (Year +1)

Regression Statistics						
Multiple R	0,866509497					
R Square	0,750838709					
Adjusted R Square	0,727839205					
Standard Error	0,929949356					
Sample Size	72					

ANOVA (Analysis of Variance)						
	df	SS	MS	F	Significance F	
Regression	6	169,3940041	28,23233402	32,64586553	8,07508E-18	
Residual	65	56,21237733	0,864805805			
Total	71	225,6063815				

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4,973206818	0,38013292	13,08281012	0,000000000	4,214028953	5,732384684
Equity Turnover Ratio	-0,206435606	0,082733886	-2,495175982	0,015138349	-0,371666586	-0,041204625
Return on Assets (ROA)	-2,880966945	1,311918369	-2,195995583	0,031666537	-5,501048853	-0,260885036
Debt Ratio	-2,602738716	0,277982203	-9,362968892	0,000000000	-3,157907511	-2,047569921
Fixed Assets/Total Assets	-2,036887159	0,514221401	-3,961109271	0,000187803	-3,063858212	-1,009916106
Current Liabilities/Total Liabilities	-2,493944941	0,500970643	-4,978225727	0,000004996	-3,494452402	-1,49343748
Backlog/Total Assets	0,617672078	0,243763149	2,533902599	0,013699590	0,130843451	1,104500704

Table 5-10: Regression Model on Altman Z-Score (Year+1)

While again exhibiting an adequate number (six) of statistically significant ($P\text{-value} < 0.05$) independent variables with close coefficients and satisfactory values of both R Square (75.08% of the variation is explained by the remaining variables) and Adjusted R Square (minor penalization due to the amount of predictor variables) values, the resulting model also fails to emerge as credible due to its increased high Standard Error value (almost 0.93).

5.4.3 Multivariate Regression For Altman Z-Score (Year +2)

The attempt to project the multivariate regression analysis one more year into the future resulted in similar results, as presented in the following Table 5-11.

The number of statistically significant ($P\text{-value} < 0.05$) independent variables rises from six to seven, while the regression coefficient values remain close. The increase in the values of both R Square (86.53% of the variation is explained by the remaining variables) and Adjusted R Square (minor penalization due to the amount of predictor variables) values is accompanied by a decrease of the Standard Error value (0.72).

Despite the improved statistical values, this model also fails to exhibit sufficient accuracy and, therefore, has to be rejected.

Altman Z-Score Regression Results (Year +2)

Regression Statistics	
Multiple R	0,930233448
R Square	0,865334267
Adjusted R Square	0,84850105
Standard Error	0,720872335
Sample Size	64

ANOVA (Analysis of Variance)					
	df	SS	MS	F	Significance F
Regression	7	186,995669	26,713667	51,40635249	4,26446E-22
Residual	56	29,10078773	0,519656924		
Total	63	216,0964567			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	5,258296245	0,44614865	11,78597367	0,000000000	4,364553102	6,152039388
Cash Ratio	0,877104895	0,194733598	4,504127203	0,000034311	0,487006623	1,267203167
Debt Ratio	-3,077906679	0,275958849	-11,15349876	0,000000000	-3,630718682	-2,525094676
Current Assets/Total Assets	-2,910196711	0,828533939	-3,512465302	0,000885694	-4,569949634	-1,250443788
Fixed Assets/Total Assets	-1,898985885	0,46309061	-4,100678879	0,000134579	-2,826667852	-0,971303918
Current Liabilities/Total Liabilities	-2,04596478	0,62761028	-3,259928724	0,001898324	-3,303219248	-0,788710311
Short-term Bank Debt/Total Bank Debt	1,281285505	0,525442997	2,438486215	0,017945887	0,228696698	2,333874311
Backlog/Total Assets	0,551639025	0,203218083	2,714517413	0,008806518	0,144544286	0,958733763

Table 5-11: Regression Model on Altman Z-Score (Year+2)

5.4.4 Multivariate Regression For EBITDA and Operational Cash Flows

Intending to identify relationships that may lead to substantial conclusions, the finally selected dependent variables were the reported EBITDA as well as the Operational Cash Flows. In order to eliminate the effect of absolute firm size across the sample, the actually employed dependent variables were EBITDA/Total Assets and Operational Cash Flows/Total Assets. The results of the multivariate regression analysis are presented presented in the following Tables 5-12 and 5-13.

EBITDA Regression Results

Regression Statistics	
Multiple R	0,932749994
R Square	0,870022551
Adjusted R Square	0,861240291
Standard Error	0,033764922
Sample Size	80

ANOVA (Analysis of Variance)					
	df	SS	MS	F	Significance F
Regression	5	0,564710303	0,112942061	99,06590621	2,37278E-31
Residual	74	0,084365175	0,00114007		
Total	79	0,649075478			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0,046347543	0,013248415	3,498346232	0,000796030	0,0199495	0,072745586
Asset Turnover Ratio	0,041519609	0,017812565	2,330916843	0,022484772	0,006027297	0,077011192
Return on Assets (ROA)	0,863722265	0,05111324	16,89820989	0,000000000	0,76187691	0,96556762
Debt Ratio	0,041526169	0,008455887	4,9109184	0,000005266	0,024677447	0,05837489
Debt Coverage Ratio	0,061608414	0,020547993	2,998269176	0,003695783	0,020665644	0,102551183
Current Assets/Total Assets	-0,101535656	0,028997366	-3,501547589	0,000787881	-0,159314168	-0,043757144

Table 5-12: Regression Model on EBITDA

Operational Cash Flows Regression Results

Regression Statistics						
Multiple R	0,923918095					
R Square	0,853624647					
Adjusted R Square	0,847846672					
Standard Error	0,033751297					
Sample Size	80					

ANOVA (Analysis of Variance)						
	df	SS	MS	F	Significance F	
Regression	3	0,504886202	0,168295401	147,7376977	1,26172E-31	
Residual	76	0,086575401	0,00113915			
Total	79	0,591461604				

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0,016401851	0,013013109	1,260409915	0,211377652	-0,009516001	0,042319703
Debt Ratio	-0,054687991	0,007203357	-7,5920144	0,000000000	-0,069034721	-0,040341262
Debt Coverage Ratio	0,359578216	0,01943798	18,49874383	0,000000000	0,320864124	0,398292309
Current Assets/Total Assets	0,060746469	0,023224712	2,615596249	0,010738461	0,014490447	0,107002492

Table 5-13: Regression Model on EBITDA

While both statistically significant (high F and low Significance F values) and potentially accurate (Standard Error of just 3.4%), these regression models do not seem to contribute significantly in identifying meaningful insights to the predictive value of the statistically significant predictor variables. Furthermore, their explanatory and predictive value is further undermined by the disproportionate importance of single variables in each model (the ROA in the case of EBITDA and the Debt Coverage Ratio in the case of the Operational Cash Flows).

5.5 Conclusions

The research conducted on the leading listed Greek construction companies confirmed that the sector is characterized by a high degree of heterogeneity and market fragmentation, as well as the low degree of capital concentration. It is true that the high-budget public works and the large-scale private infrastructure projects are realized in an oligopolistic market framework dominated by the larger conglomerates (namely ΓΕΚ ΤΕΡΝΑ Α.Ε., ΙΝΤΡΑΚΑΤ Α.Ε., J&P ΑΒΑΞ Α.Ε. and the ΜΕΤΚΑ construction part of the Μυτιληneos Group). On the other hand, the majority of smaller-scale projects (public or private) are executed by a vast number of very small-, small- and medium-sized construction companies spread across the country. This market fragmentation leads to the limited credibility of the sectoral aggregate data and industry averages, when these are intended to be applied on individual corporate management frameworks.

The long-standing and well-established financial distress prediction models (namely the Altman Z-Score model, the Springate S-Score model, the Zmijewski X-Score model and the Ohlson O-Score and P-Probability model) demonstrate substantial and systematic deviations from observed financial reality. While the Altman model appears to be the most suitable for application in large construction companies, due to its inherent relevance, the overall results fail to consistently provide accurate insights and predictions. This raises significant concerns regarding the external validity and sectoral transferability of these models, when applied to the Greek construction industry, and limits their usefulness in corporate decision-making and future risk assessment.

The correlation analysis both independently within each of the selected companies as well as across the entire research sample has indicated the absence of significant relationships between financial ratios, future distress indicators and sector-specific variables. Obvious and self-explanatory correlations that indicate the dependence of liquidity, profitability and resilience on the successful generation of revenue are not considered sufficiently noteworthy within the scope of the present postgraduate research. The absence of significant cause-and-effect relations further highlights the inherent challenges demonstrated by this specific sector and underlines the fact that universal decision-making models for corporate management do not exist.

An important observation emerging from the multivariate regression analysis on the Altman Z-Score is the standing positive effect of the backlog on the survivability of the Greek construction companies. While as a predictor variable the corresponding coefficient is attributed a fairly low coefficient value, its presence as statistically important in all of the regression models and the consistently positive influence on the Altman Z-Score indicates that this particularity (the existence of backlog) of the construction sector should not only be taken into account while assessing company survivability, but also potentially be an objective during the design of future operations.

In conclusion, the observed dichotomy (highly concentrated central oligopoly of large-scale infrastructure market and highly fragmented market segment of smaller localized projects) and the inherent structural particularities of the Greek construction sector have limited the effectiveness of aggregate industry benchmarks (averages, trends, etc.) and decision-making paradigms. Moreover, the identified systematic failure of the established financial distress prediction models (Altman Z-Score, Springate S-Score, Zmijewski X-Score, Ohlson O-

Score and P-Probability) to provide credible insights within this specific framework further underlines the required distinction between the standardized macroeconomic models and the microeconomic reality of the sector. Lastly, the empirical absence of statistically significant and generalizable cause-and-effect correlations linking financial performance and resilience with specific structural variables renders generalized algorithmic decision-making frameworks invalid. In this specific context the individual talent, knowledge and capabilities of managers emerge as the only viable alternative for efficient corporate guidance. While navigating such an intricate landscape, the modern executives in the Greek construction sector cannot act as passive observers of balance sheet formulas, but evolve into dynamic strategists fluidly moving at the same time through the fields of engineering knowledge, real-time risk assessment and precise capital structure and operation management.

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Appendix A: Progress Tables and Charts of Selected Companies

	TURNOVER										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	95.573,00 €	223.827,00 €
Ο ΚΕΚΡΟΨ Α.Ε.	0,00 €	0,00 €	14.835,00 €	14.835,00 €	13.306,00 €	11.400,00 €	14.400,00 €	6.270,00 €	13.778.316,00 €	439.216,00 €	4.040.217,00 €
ΕΚΤΕΡ Α.Ε.	11.927.338,92 €	14.895.518,44 €	17.537.067,13 €	8.426.953,59 €	22.756.890,20 €	20.114.152,59 €	15.455.136,89 €	20.982.144,39 €	23.157.822,46 €	79.069.677,62 €	86.236.205,20 €
ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.	12.478.150,00 €	4.590.559,00 €	9.685.690,00 €	6.504.878,00 €	6.010.931,00 €	7.255.349,00 €	10.282.830,00 €	11.013.044,00 €	12.282.387,00 €	20.792.615,00 €	15.682.369,00 €
ΒΙΟΤΕΡ Α.Ε.	4.946.000,00 €	1.227.000,00 €	551.000,00 €	180.000,00 €	177.000,00 €	250.000,00 €	228.000,00 €	246.000,00 €	252.000,00 €	499.000,00 €	1.255.000,00 €
ΓΕΚ ΤΕΡΝΑ Α.Ε.	923.894.000,00 €	971.773.000,00 €	1.163.480.000,00 €	1.185.531.000,00 €	1.402.700.000,00 €	1.155.739.000,00 €	891.905.000,00 €	1.144.199.000,00 €	3.938.278.000,00 €	3.252.257.000,00 €	3.249.861.000,00 €
J&P ΑΒΑΞ Α.Ε.	518.086.126,00 €	456.197.943,00 €	541.189.155,00 €	673.077.032,00 €	538.385.578,00 €	575.927.296,00 €	462.735.572,00 €	592.214.529,00 €	402.709.185,00 €	453.546.704,00 €	651.496.479,00 €
ΙΝΤΡΑΚΑΤ Α.Ε.	153.393.561,00 €	147.594.551,00 €	182.383.706,00 €	147.167.994,00 €	232.143.007,00 €	286.010.483,00 €	174.506.165,00 €	214.840.059,00 €	225.419.868,00 €	412.106.912,00 €	1.254.923.600,00 €

Table A-1: Annual Reported Turnover

	NET RESULTS										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.	693.525,65 €	-1.946.278,11 €	-1.116.024,55 €	-314.610,00 €	3.040.024,00 €	-1.635.083,00 €	206.990,00 €	-198.765,00 €	1.743.132,00 €	-1.536.014,00 €	-268.990,00 €
Ο ΚΕΚΡΟΨ Α.Ε.	-1.330.000,00 €	-1.299.000,00 €	-673.801,00 €	-932.172,00 €	-118.686,00 €	-566.014,00 €	11.956,00 €	-810.335,00 €	10.416.158,00 €	81.841,00 €	-1.023.612,00 €
ΕΚΤΕΡ Α.Ε.	-116.905,88 €	404.451,80 €	104.562,91 €	-1.343.991,55 €	531.683,40 €	-1.610.812,77 €	-383.915,71 €	924.990,75 €	568.771,59 €	8.977.250,45 €	10.313.834,54 €
ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.	-1.071.142,00 €	-162.415,00 €	-254.724,00 €	-1.619.345,00 €	-12.966,00 €	423.542,00 €	1.224.212,00 €	1.179.525,00 €	964.166,00 €	1.885.819,00 €	100.451,00 €
ΒΙΟΤΕΡ Α.Ε.	-13.410.000,00 €	-10.106.000,00 €	-18.442.000,00 €	-17.564.000,00 €	-13.152.000,00 €	-8.980.000,00 €	5.915.000,00 €	-8.821.000,00 €	-9.664.000,00 €	-11.776.000,00 €	-21.129.000,00 €
ΓΕΚ ΤΕΡΝΑ Α.Ε.	-59.063.000,00 €	-4.252.000,00 €	45.819.000,00 €	94.787.000,00 €	35.841.000,00 €	55.732.000,00 €	40.074.000,00 €	130.220.000,00 €	177.348.000,00 €	127.315.000,00 €	17.686.000,00 €
J&P ΑΒΑΞ Α.Ε.	-40.554.043,00 €	-5.307.209,00 €	-51.648.081,00 €	-10.552.125,00 €	-24.459.737,00 €	-17.624.826,00 €	10.474.818,00 €	2.007.436,00 €	12.916.311,00 €	10.026.194,00 €	21.608.833,00 €
ΙΝΤΡΑΚΑΤ Α.Ε.	441.438,00 €	-5.944.039,00 €	-6.392.216,00 €	-4.477.424,00 €	-2.817.378,00 €	575.539,00 €	-12.426.027,00 €	-22.583.017,00 €	-23.637.013,00 €	2.930.920,00 €	3.688.820,00 €

Table A-2: Annual Reported Net Results

	OPERATING CASH FLOWS										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.	-431.614,54 €	3.153.795,40 €	-379.647,13 €	-696.283,00 €	2.771.459,00 €	-1.183.435,00 €	5.347.826,00 €	488.617,00 €	1.574.541,00 €	-453.216,00 €	185.172,00 €
Ο ΚΕΚΡΟΨ Α.Ε.	-2.089.000,00 €	-635.000,00 €	-349.975,00 €	-1.237.802,00 €	-368.695,00 €	-1.185.125,00 €	-871.179,00 €	-115.311,00 €	-558.395,00 €	-465.822,00 €	-1.080.121,00 €
ΕΚΤΕΡ Α.Ε.	-1.148.900,41 €	247.595,41 €	-1.014.975,05 €	-2.258.684,99 €	2.269.622,93 €	-8.068.555,06 €	391.850,17 €	664.786,49 €	5.169.359,51 €	12.686.478,45 €	-22.318,13 €
ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.	-442.310,00 €	-563.526,00 €	-2.992.837,00 €	-88.649,00 €	-605.835,00 €	-135.479,00 €	873.821,00 €	-200.196,00 €	-82.657,00 €	209.961,00 €	-446.172,00 €
ΒΙΟΤΕΡ Α.Ε.	-9.584.000,00 €	-8.766.000,00 €	-7.164.000,00 €	-13.889.000,00 €	-7.050.000,00 €	-6.414.000,00 €	-9.101.000,00 €	-6.376.000,00 €	-9.458.000,00 €	-5.793.000,00 €	-11.838.000,00 €
ΓΕΚ ΤΕΡΝΑ Α.Ε.	242.158.000,00 €	175.159.000,00 €	311.176.000,00 €	7.616.000,00 €	96.442.000,00 €	238.140.000,00 €	316.217.000,00 €	313.918.000,00 €	244.012.000,00 €	235.149.000,00 €	427.008.000,00 €
J&P ΑΒΑΞ Α.Ε.	-28.963.012,00 €	-15.853.042,00 €	-21.600.902,00 €	-32.408.631,00 €	-19.484.810,00 €	99.465.035,00 €	-69.922.764,00 €	49.856.639,00 €	-14.447.335,00 €	61.292.814,00 €	-36.811.999,00 €
ΙΝΤΡΑΚΑΤ Α.Ε.	4.295.335,00 €	-12.949.822,00 €	8.247.173,00 €	28.466.704,00 €	-38.444.455,00 €	815.443,00 €	11.617.685,00 €	-22.665.348,00 €	14.699.325,00 €	100.209.464,00 €	42.559.425,00 €

Table A-3: Annual Reported Operating Cashflows

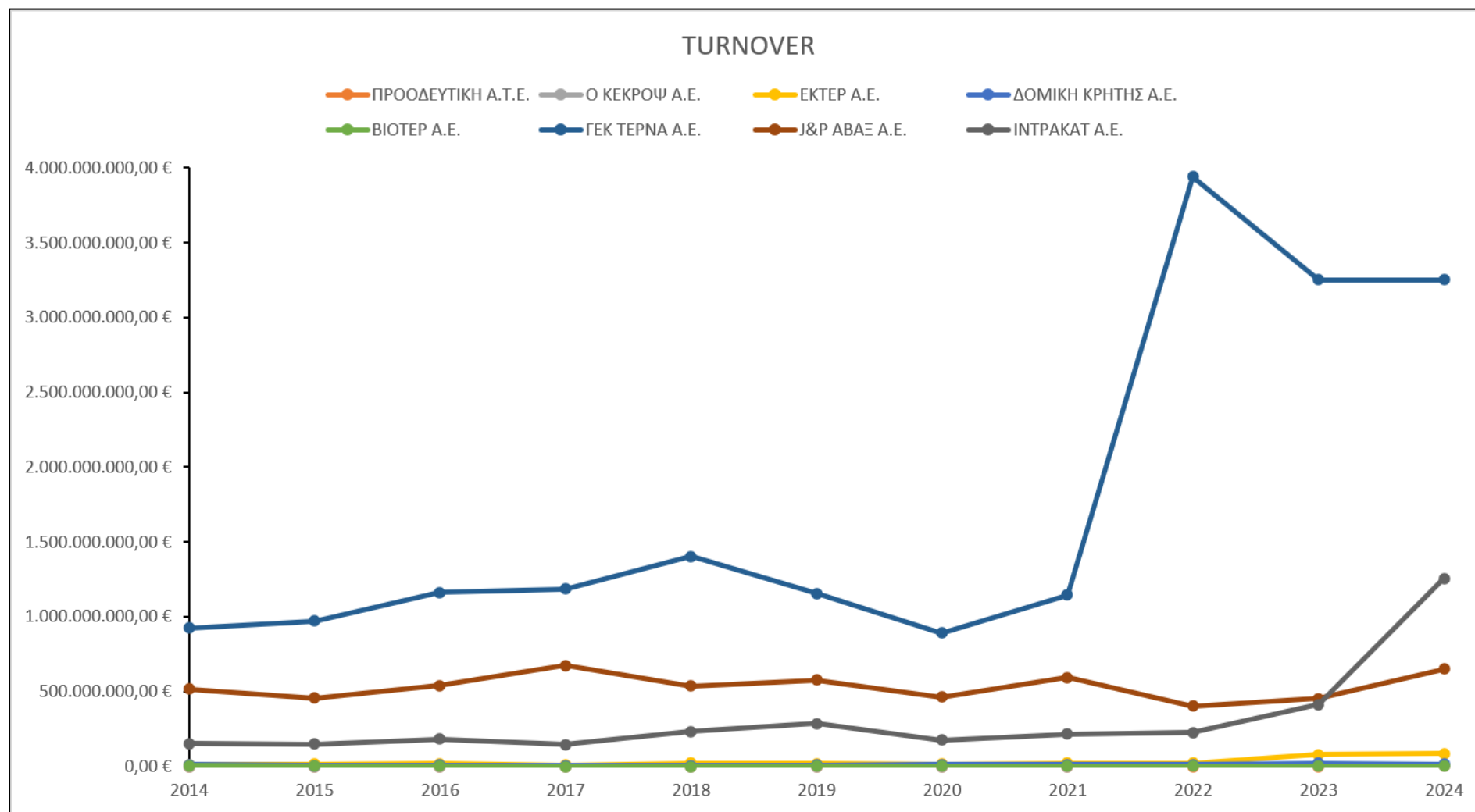


Figure A-1: Annual Reported Turnover Chart

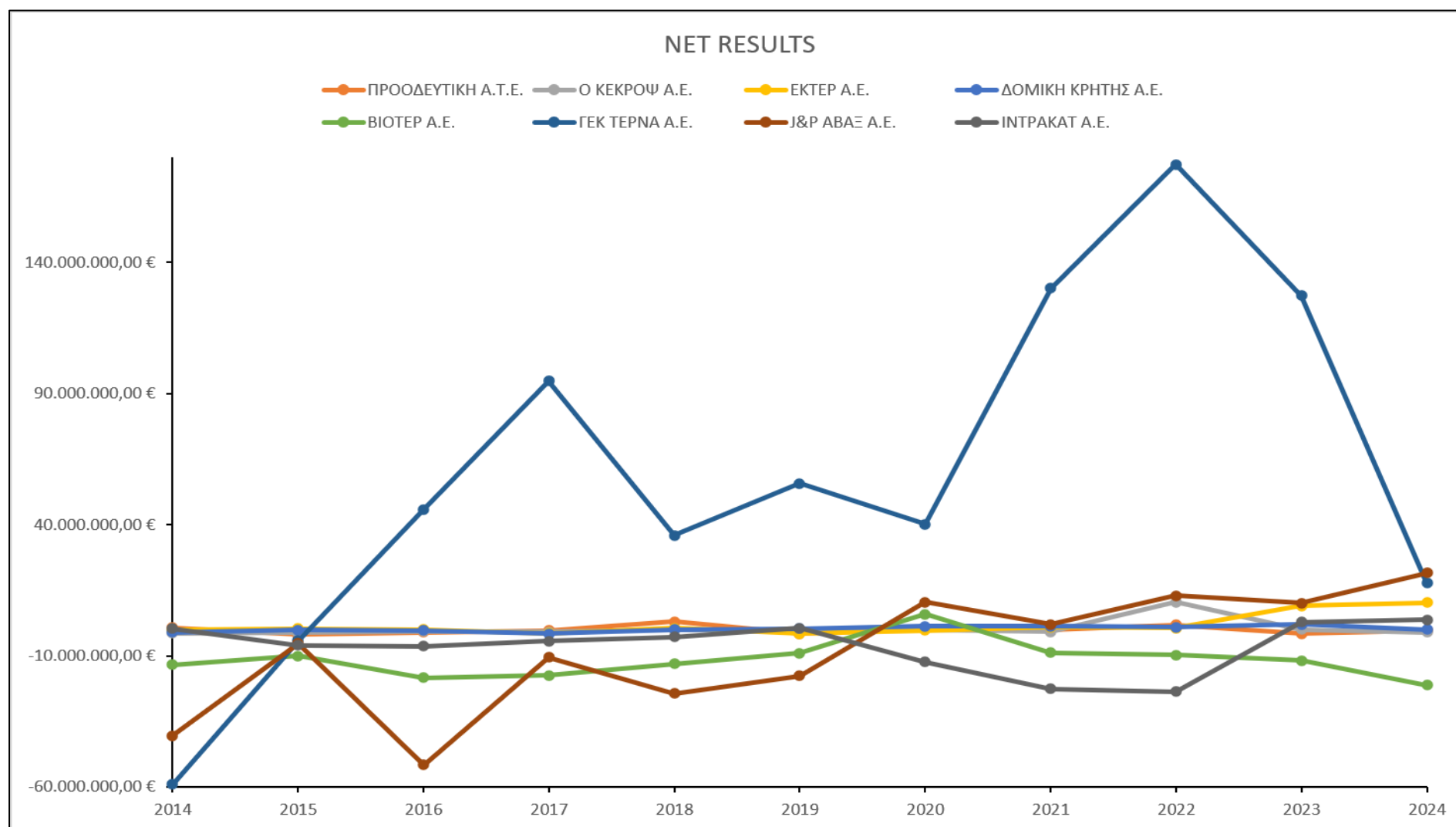


Figure A-2: Annual Reported Net Results Chart

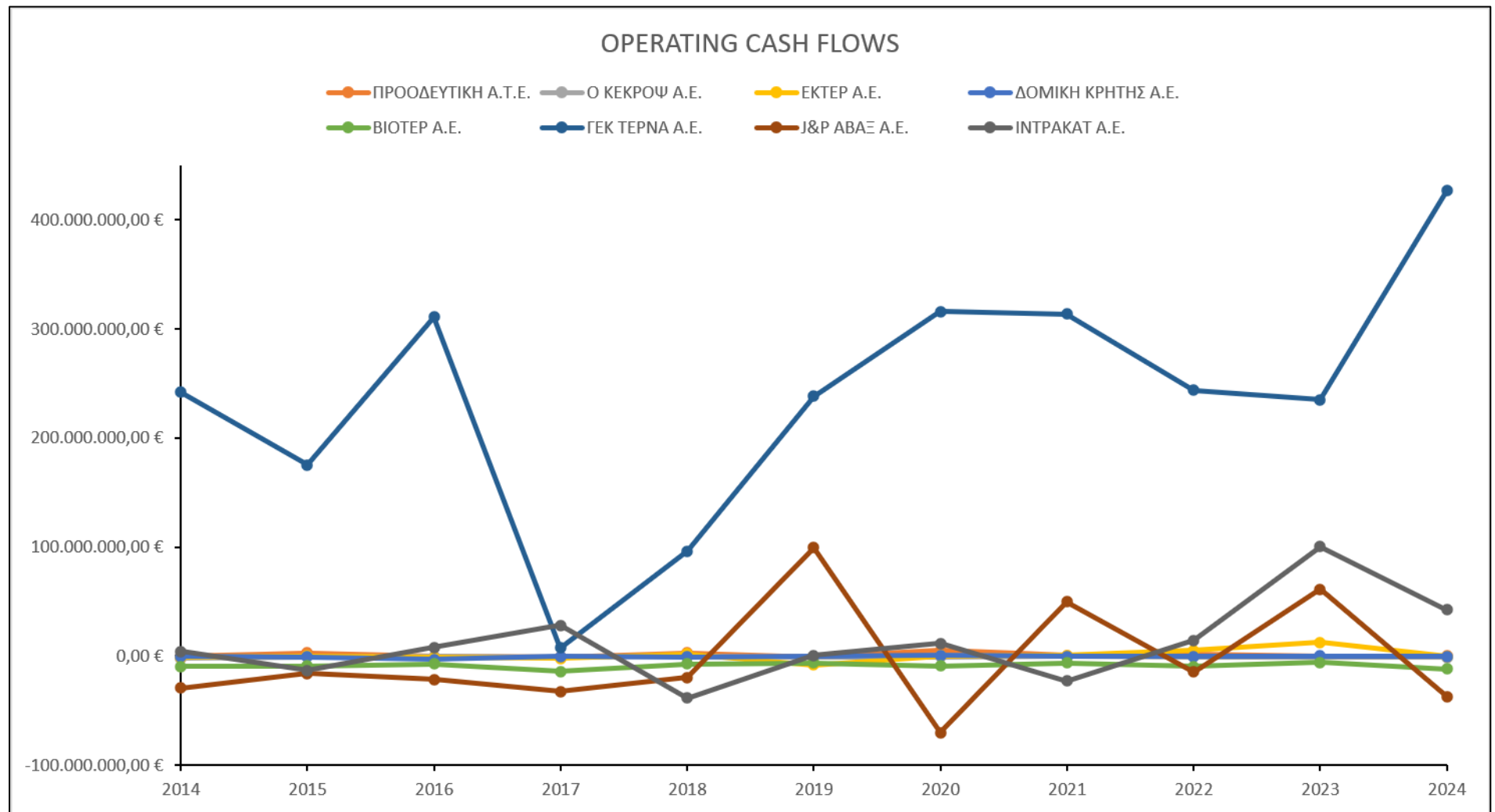


Figure A-3: Annual Reported Operating Cash Flows Chart

Appendix B: Correlation Tables

ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.	Current Ratio	Quick Ratio	Cash Ratio	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																							
Quick Ratio	0,99	1,00																						
Cash Ratio	-0,53	-0,55	1,00																					
Return on Assets (ROA)	0,21	0,27	0,32	1,00																				
Return on Equity (ROE)	0,15	0,21	0,32	0,99	1,00																			
Debt to Equity	-0,21	-0,24	0,00	-0,46	-0,49	1,00																		
Debt Ratio	-0,27	-0,31	0,10	-0,46	-0,49	0,99	1,00																	
Total Liabilities to Current Assets Ratio	-0,14	-0,17	-0,26	-0,61	-0,63	0,89	0,84	1,00																
Financial Leverage Ratio	-0,21	-0,24	0,00	-0,46	-0,49	1,00	0,99	0,89	1,00															
Debt Coverage Ratio	-0,07	-0,10	0,72	0,37	0,36	-0,17	-0,09	-0,27	-0,17	1,00														
Financial Autonomy Ratio	0,27	0,31	-0,10	0,46	0,49	-0,99	-1,00	-0,84	-0,99	0,09	1,00													
Cash Flow to Debt Ratio	-0,09	-0,12	0,73	0,41	0,39	-0,21	-0,14	-0,31	-0,21	0,98	0,14	1,00												
ALTMAN Z-SCORE	0,36	0,40	0,23	0,88	0,87	-0,75	-0,76	-0,77	-0,75	0,43	0,76	0,49	1,00											
SPRINGATE S-SCORE	0,29	0,31	0,43	0,87	0,84	-0,26	-0,22	-0,48	-0,26	0,62	0,22	0,64	0,75	1,00										
ZMIJEWSKI X-SCORE	-0,28	-0,34	-0,10	-0,80	-0,82	0,89	0,90	0,86	0,89	-0,25	-0,90	-0,30	-0,95	-0,58	1,00									
OHLSON P-PROBABILITY	-0,26	-0,30	-0,35	-0,84	-0,83	0,57	0,55	0,60	0,57	-0,68	-0,55	-0,72	-0,88	-0,85	0,79	1,00								
Current Assets/Total Assets	-0,30	-0,33	0,52	-0,01	-0,04	0,60	0,69	0,19	0,60	0,19	-0,69	0,15	-0,36	0,24	0,47	0,19	1,00							
Non-Current Assets/Total Assets	0,30	0,33	-0,52	0,01	0,04	-0,60	-0,69	-0,19	-0,60	-0,19	0,69	-0,15	0,36	-0,24	-0,47	-0,19	-1,00	1,00						
Fixed Assets/Total Assets	0,22	0,22	0,20	0,03	0,00	0,16	0,14	-0,06	0,16	0,06	-0,14	0,04	0,01	0,00	0,08	0,09	0,30	-0,30	1,00					
Current Liabilities/Total Liabilities	-0,73	-0,71	0,66	0,26	0,31	-0,42	-0,33	-0,57	-0,42	0,25	0,33	0,30	0,24	0,10	-0,35	-0,19	0,15	-0,15	-0,10	1,00				
Non-Current Liabilities/Total Liabilities	0,73	0,71	-0,66	-0,26	-0,31	0,42	0,33	0,57	0,42	-0,25	-0,33	-0,30	-0,24	-0,10	0,35	0,19	-0,15	0,15	0,10	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	-0,42	-0,45	0,49	-0,10	-0,12	0,69	0,78	0,34	0,69	0,22	-0,78	0,16	-0,47	0,16	0,58	0,22	0,97	-0,97	0,17	0,13	-0,13	1,00		
Long-term Bank Debt/Total Bank Debt	0,42	0,45	-0,49	0,10	0,12	-0,69	-0,78	-0,34	-0,69	-0,22	0,78	-0,16	0,47	-0,16	-0,58	-0,22	-0,97	0,97	-0,17	-0,13	0,13	-1,00	1,00	
Total Bank Debt/Total Assets	0,02	-0,02	-0,02	-0,32	-0,36	0,91	0,93	0,71	0,91	-0,06	-0,93	-0,12	-0,64	-0,02	0,78	0,40	0,73	-0,73	0,20	-0,49	0,49	0,79	-0,79	1,00

Table B-1: Correlations Table for ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

Ο ΚΕΚΡΟΥ Α.Ε.	Current Ratio	Quick Ratio	Cash Ratio	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMJUEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1.00																														
Quick Ratio	1.00	1.00																													
Cash Ratio	0.83	0.83	1.00																												
Working Capital Turnover Ratio	-0.12	-0.12	-0.20	1.00																											
Asset Turnover Ratio	0.03	0.03	0.08	0.95	1.00																										
Fixed Asset Turnover Ratio	0.00	0.00	0.04	0.96	1.00	1.00																									
Equity Turnover Ratio	0.01	0.01	0.05	0.96	1.00	1.00	1.00																								
Gross Profit Margin	0.24	0.23	0.30	0.34	0.46	0.44	0.45	1.00																							
Net Profit Margin	0.43	0.42	0.33	0.35	0.47	0.46	0.46	0.63	1.00																						
EBITDA Margin	0.51	0.51	0.41	0.25	0.33	0.32	0.32	0.89	0.54	1.00																					
Return on Assets (ROA)	-0.01	-0.01	-0.14	0.93	0.90	0.91	0.91	0.40	0.63	0.29	1.00																				
Return on Equity (ROE)	0.11	0.11	-0.01	0.87	0.87	0.88	0.87	0.46	0.72	0.36	0.97	1.00																			
Debt to Equity	-0.26	-0.25	-0.39	-0.32	-0.46	-0.44	-0.44	-0.57	-0.48	-0.48	-0.38	-0.56	1.00																		
Debt Ratio	-0.22	-0.22	-0.45	-0.39	-0.58	-0.56	-0.56	-0.69	-0.59	-0.54	-0.46	-0.60	0.94	1.00																	
Total Liabilities to Current Assets Ratio	-0.46	-0.46	-0.57	0.75	0.63	0.66	0.65	0.33	0.34	0.18	0.76	0.63	0.06	-0.09	1.00																
Financial Leverage Ratio	-0.26	-0.25	-0.39	-0.32	-0.46	-0.44	-0.44	-0.57	-0.48	-0.48	-0.38	-0.56	1.00	0.94	0.06	1.00															
Debt Coverage Ratio	-0.48	-0.48	-0.47	0.21	0.10	0.12	0.12	-0.24	-0.32	-0.21	0.12	-0.02	0.36	0.27	0.49	0.36	1.00														
Financial Autonomy Ratio	0.22	0.22	0.45	0.39	0.58	0.56	0.56	0.69	0.59	0.54	0.46	0.60	-0.94	-1.00	0.09	-0.94	-0.27	1.00													
Cash Flow to Debt Ratio	-0.47	-0.47	-0.67	0.18	-0.04	0.00	-0.01	-0.36	-0.37	-0.23	0.10	-0.04	0.47	0.48	0.49	0.47	0.91	-0.48	1.00												
ALTMAN Z-SCORE	0.48	0.48	0.30	0.48	0.52	0.51	0.51	0.10	0.40	0.24	0.50	0.59	-0.50	-0.40	0.02	-0.50	-0.48	0.40	-0.36	1.00											
SPRINGATE S-SCORE	-0.12	-0.12	-0.22	1.00	0.93	0.95	0.94	0.34	0.34	0.26	0.93	0.87	-0.32	-0.37	0.76	-0.32	0.23	0.37	0.21	0.47	1.00										
ZMJUEWSKI X-SCORE	-0.11	-0.11	-0.16	-0.79	-0.88	-0.87	-0.87	-0.63	-0.71	-0.47	-0.87	-0.93	0.75	0.83	-0.53	0.75	0.07	-0.83	0.20	-0.53	-0.79	1.00									
OHLSON P-PROBABILITY	-0.32	-0.32	-0.34	-0.74	-0.84	-0.83	-0.83	-0.68	-0.66	-0.60	-0.78	-0.87	0.81	0.84	-0.33	0.81	0.28	-0.84	0.38	-0.66	-0.73	0.94	1.00								
Current Assets/Total Assets	0.58	0.59	0.74	-0.50	-0.34	-0.37	-0.36	-0.15	-0.23	-0.03	-0.54	-0.42	-0.17	-0.08	-0.91	-0.17	-0.45	0.08	-0.55	0.03	-0.51	0.30	0.08	1.00							
Non-Current Assets/Total Assets	-0.58	-0.59	-0.74	0.50	0.34	0.37	0.36	0.15	0.23	0.03	0.54	0.42	0.17	0.08	0.91	0.17	0.45	-0.08	0.55	-0.03	0.51	-0.30	-0.08	-1.00	1.00						
Fixed Assets/Total Assets	0.10	0.10	-0.14	-0.47	-0.60	-0.59	-0.59	-0.73	-0.61	-0.45	-0.56	-0.59	0.55	0.75	-0.49	0.55	-0.17	-0.75	0.11	0.11	-0.46	0.76	0.62	0.27	-0.27	1.00					
Current Liabilities/Total Liabilities	-0.58	-0.58	-0.46	-0.38	-0.44	-0.43	-0.43	-0.27	-0.34	-0.41	-0.38	-0.53	0.74	0.58	0.20	0.74	0.53	-0.58	0.46	-0.88	-0.38	0.55	0.75	-0.32	0.32	0.01	1.00				
Non-Current Liabilities/Total Liabilities	0.58	0.58	0.46	0.38	0.44	0.43	0.43	0.27	0.34	0.41	0.38	0.53	-0.74	-0.58	-0.20	-0.74	-0.53	0.58	-0.46	0.88	0.38	-0.55	-0.75	0.32	-0.32	-0.01	-1.00	1.00			
Short-term Bank Debt/Total Bank Debt	-0.47	-0.47	-0.37	-0.28	-0.30	-0.30	-0.30	-0.12	-0.08	-0.26	-0.21	-0.35	0.66	0.45	0.34	0.66	0.56	-0.45	0.46	-0.79	0.28	0.37	0.60	-0.43	0.43	-0.15	0.96	-0.96	1.00		
Long-term Bank Debt/Total Bank Debt	0.47	0.47	0.37	0.28	0.30	0.30	0.30	0.12	0.08	0.26	0.21	0.35	-0.66	-0.45	-0.34	-0.66	-0.56	0.45	-0.46	0.79	0.28	-0.37	-0.60	0.43	-0.43	0.15	-0.96	0.96	-1.00	1.00	
Total Bank Debt/Total Assets	-0.02	-0.02	-0.36	-0.35	-0.55	-0.53	-0.53	-0.82	-0.51	-0.55	-0.38	-0.46	0.74	0.89	-0.22	0.74	0.19	-0.89	0.46	-0.07	-0.34	0.73	0.71	0.01	-0.01	0.88	0.25	-0.25	0.14	-0.14	1.00

Table B-2: Correlations Table for Ο ΚΕΚΡΟΥ Α.Ε.

EKTEP A.E.	Current Ratio	Quick Ratio	Cash Ratio	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities
Current Ratio	1,00																										
Quick Ratio	0.93	1,00																									
Cash Ratio	0.29	0.01	1,00																								
Working Capital Turnover Ratio	-0.63	-0.44	-0.55	1,00																							
Asset Turnover Ratio	-0.42	-0.25	-0.40	0.90	1,00																						
Fixed Asset Turnover Ratio	-0.32	-0.47	0.18	0.20	0.40	1,00																					
Equity Turnover Ratio	-0.58	-0.38	-0.40	0.93	0.96	0.26	1,00																				
Gross Profit Margin	-0.15	-0.15	0.39	0.24	0.27	-0.13	0.39	1,00																			
Net Profit Margin	-0.36	-0.25	-0.12	0.67	0.69	0.05	0.74	0.75	1,00																		
EBITDA Margin	-0.27	-0.16	-0.04	0.56	0.60	-0.03	0.66	0.84	0.98	1,00																	
Return on Assets (ROA)	-0.43	-0.29	-0.10	0.78	0.82	0.12	0.89	0.74	0.89	0.86	1,00																
Return on Equity (ROE)	-0.50	-0.35	-0.16	0.83	0.83	0.11	0.92	0.68	0.84	0.81	0.99	1,00															
Debt to Equity	-0.71	-0.48	-0.41	0.72	0.57	-0.19	0.77	0.50	0.70	0.67	0.74	0.78	1,00														
Debt Ratio	-0.72	-0.48	-0.44	0.72	0.59	-0.15	0.78	0.49	0.71	0.68	0.74	0.77	0.99	1,00													
Total Liabilities to Current Assets Ratio	-0.59	-0.34	-0.60	0.68	0.42	-0.42	0.61	0.36	0.61	0.58	0.58	0.63	0.92	0.91	1,00												
Financial Leverage Ratio	-0.71	-0.48	-0.41	0.72	0.57	-0.19	0.77	0.50	0.70	0.67	0.74	0.78	1,00	0.99	0.92	1,00											
Debt Coverage Ratio	-0.08	0.02	0.24	0.17	0.33	-0.04	0.42	0.86	0.68	0.80	0.69	0.62	0.48	0.51	0.31	0.48	1,00										
Financial Autonomy Ratio	0.72	0.48	0.44	-0.72	-0.59	0.15	-0.78	-0.49	-0.71	-0.68	-0.74	-0.77	-0.99	-1.00	-0.91	-0.99	-0.51	1,00									
ALTMAN Z-SCORE	-0.20	-0.01	-0.33	0.78	0.95	0.29	0.89	0.34	0.64	0.58	0.81	0.81	0.47	0.48	0.32	0.47	0.44	-0.48	1,00								
SPRINGATE S-SCORE	-0.25	-0.11	-0.05	0.69	0.81	0.13	0.83	0.76	0.90	0.90	0.96	0.92	0.62	0.63	0.46	0.62	0.76	-0.63	0.85	1,00							
ZMIJEWSKI X-SCORE	-0.70	-0.47	-0.54	0.47	0.27	-0.29	0.48	0.18	0.40	0.38	0.37	0.41	0.89	0.90	0.88	0.89	0.25	-0.90	0.13	0.24	1,00						
OHLSON P-PROBABILITY	-0.31	-0.26	-0.55	0.17	-0.06	-0.05	-0.06	-0.76	-0.43	-0.58	-0.42	-0.32	0.01	-0.02	0.15	0.01	-0.86	0.02	-0.22	-0.55	0.25	1,00					
Current Assets/Total Assets	-0.56	-0.52	0.18	0.38	0.56	0.51	0.63	0.51	0.56	0.54	0.65	0.63	0.56	0.59	0.20	0.56	0.63	-0.59	0.50	0.63	0.38	-0.38	1,00				
Non-Current Assets/Total Assets	0.56	0.52	-0.18	-0.38	-0.56	-0.51	-0.63	-0.51	-0.56	-0.54	-0.65	-0.63	-0.56	-0.59	-0.20	-0.56	-0.63	0.59	-0.50	-0.63	-0.38	0.38	-1.00	1,00			
Fixed Assets/Total Assets	-0.36	-0.22	-0.38	0.55	0.20	-0.57	0.36	0.39	0.49	0.46	0.44	0.49	0.63	0.58	0.82	0.63	0.09	-0.58	0.13	0.32	0.52	0.17	-0.18	0.18	1,00		
Current Liabilities/Total Liabilities	-0.43	-0.66	0.41	-0.01	0.02	0.80	-0.02	-0.15	-0.24	-0.31	-0.11	-0.08	-0.24	-0.24	-0.45	-0.24	-0.27	0.24	-0.10	-0.19	-0.26	0.17	0.35	-0.35	-0.42	1,00	
Non-Current Liabilities/Total Liabilities	0.43	0.66	-0.41	0.01	-0.02	-0.80	0.02	0.15	0.24	0.31	0.11	0.08	0.24	0.24	0.45	0.24	0.27	-0.24	0.10	0.19	0.26	-0.17	-0.35	0.35	0.42	-1.00	1,00

Table B-3: Correlations Table for EKTEP A.E.

ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.	Current Ratio	Quick Ratio	Cash Ratio	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																													
Quick Ratio	1,00	1,00																												
Cash Ratio	0,29	0,30	1,00																											
Working Capital Turnover Ratio	0,81	0,81	0,10	1,00																										
Asset Turnover Ratio	0,68	0,69	-0,01	0,63	1,00																									
Fixed Asset Turnover Ratio	0,71	0,71	0,19	0,68	0,97	1,00																								
Equity Turnover Ratio	0,58	0,59	-0,02	0,53	0,98	0,95	1,00																							
Net Profit Margin	0,60	0,60	0,41	0,23	0,53	0,52	0,50	1,00																						
EBITDA Margin	0,47	0,46	0,44	0,00	0,32	0,30	0,29	0,96	1,00																					
Return on Assets (ROA)	0,67	0,67	0,49	0,31	0,62	0,62	0,60	0,97	0,90	1,00																				
Return on Equity (ROE)	0,65	0,64	0,49	0,28	0,61	0,61	0,59	0,98	0,92	1,00	1,00																			
Debt to Equity	-0,80	-0,80	0,15	-0,70	-0,86	-0,78	-0,76	-0,55	-0,37	-0,56	-0,55	1,00																		
Debt Ratio	-0,81	-0,81	0,12	-0,73	-0,83	-0,77	-0,73	-0,53	-0,35	-0,54	-0,52	1,00	1,00																	
Total Liabilities to Current Assets Ratio	-0,84	-0,85	-0,54	-0,60	-0,69	-0,77	-0,60	-0,76	-0,66	-0,80	-0,80	0,71	0,72	1,00																
Financial Leverage Ratio	-0,80	-0,80	0,15	-0,70	-0,86	-0,78	-0,76	-0,55	-0,37	-0,56	-0,55	1,00	1,00	0,71	1,00															
Debt Coverage Ratio	0,35	0,34	0,51	-0,01	0,19	0,24	0,19	0,29	0,32	0,39	0,37	-0,12	-0,12	-0,35	-0,12	1,00														
Financial Autonomy Ratio	0,81	0,81	-0,12	0,73	0,83	0,77	0,73	0,53	0,35	0,54	0,52	-1,00	-1,00	-0,72	-1,00	0,12	1,00													
Cash Flow to Debt Ratio	0,36	0,35	0,48	0,00	0,21	0,25	0,21	0,29	0,32	0,39	0,37	-0,13	-0,13	-0,34	-0,13	1,00	0,13	1,00												
ALTMAN Z-SCORE	0,80	0,80	0,26	0,79	0,90	0,96	0,83	0,51	0,30	0,59	0,58	-0,82	-0,83	-0,84	-0,82	0,28	0,83	0,29	1,00											
SPRINGATE S-SCORE	0,90	0,90	0,34	0,62	0,82	0,82	0,77	0,83	0,69	0,90	0,88	-0,81	-0,79	-0,89	-0,81	0,40	0,79	0,41	0,82	1,00										
ZMIJEWSKI X-SCORE	-0,85	-0,85	-0,18	-0,61	-0,84	-0,80	-0,77	-0,84	-0,69	-0,86	-0,85	0,91	0,90	0,86	0,91	-0,28	-0,90	-0,28	-0,82	-0,96	1,00									
OHLSON P-PROBABILITY	-0,60	-0,59	-0,63	-0,25	-0,35	-0,40	-0,32	-0,87	-0,85	-0,88	-0,89	0,33	0,32	0,70	0,33	-0,53	-0,32	-0,54	-0,45	-0,74	0,66	1,00								
Current Assets/Total Assets	0,81	0,82	0,61	0,60	0,67	0,80	0,61	0,64	0,53	0,71	0,71	-0,60	-0,61	-0,97	-0,60	0,39	0,61	0,38	0,85	0,83	-0,75	-0,65	1,00							
Non-Current Assets/Total Assets	-0,81	-0,82	-0,61	-0,60	-0,67	-0,80	-0,61	-0,64	-0,53	-0,71	-0,71	0,60	0,61	0,97	0,60	-0,39	-0,61	-0,38	-0,85	-0,83	0,75	0,65	-1,00	1,00						
Fixed Assets/Total Assets	-0,73	-0,74	-0,59	-0,61	-0,70	-0,83	-0,63	-0,57	-0,43	-0,65	-0,64	0,61	0,63	0,93	0,61	-0,29	-0,63	-0,27	-0,87	-0,77	0,73	0,51	-0,96	0,96	1,00					
Current Liabilities/Total Liabilities	-0,84	-0,83	-0,09	-0,72	-0,39	-0,36	-0,30	-0,34	-0,24	-0,42	-0,38	0,58	0,60	0,45	0,58	-0,39	-0,60	-0,41	-0,48	-0,65	0,58	0,46	-0,41	0,41	0,29	1,00				
Non-Current Liabilities/Total Liabilities	0,84	0,83	0,09	0,72	0,39	0,36	0,30	0,34	0,24	0,42	0,38	-0,58	-0,60	-0,45	-0,58	0,39	0,60	0,41	0,48	0,65	-0,58	-0,46	0,41	-0,41	-0,29	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	-0,91	-0,90	-0,19	-0,78	-0,51	-0,50	-0,42	-0,42	-0,29	-0,51	-0,47	0,66	0,68	0,59	0,66	-0,44	-0,68	-0,46	-0,62	-0,75	0,68	0,53	-0,55	0,55	0,45	0,98	-0,98	1,00		
Long-term Bank Debt/Total Bank Debt	0,91	0,90	0,19	0,78	0,51	0,50	0,42	0,42	0,29	0,51	0,47	-0,66	-0,68	-0,59	-0,66	0,44	0,68	0,46	0,62	0,75	-0,68	-0,53	0,55	-0,55	-0,45	-0,98	0,98	-1,00	1,00	
Total Bank Debt/Total Assets	-0,63	-0,64	-0,50	-0,61	-0,38	-0,51	-0,29	-0,29	-0,18	-0,36	-0,35	0,42	0,45	0,70	0,42	0,02	-0,45	0,06	-0,57	-0,51	0,47	0,20	-0,72	0,72	0,82	0,30	-0,30	0,40	-0,40	1,00

Table B-4: Correlations Table for ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.

BIOTEP A.E.	Current Ratio	Quick Ratio	Cash Ratio	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Total Bank Debt/Total Assets
Current Ratio	1,00																											
Quick Ratio	1,00	1,00																										
Cash Ratio	-0,51	-0,52	1,00																									
Working Capital Turnover Ratio	-0,52	-0,50	0,03	1,00																								
Asset Turnover Ratio	-0,04	-0,06	0,15	-0,79	1,00																							
Fixed Asset Turnover Ratio	-0,09	-0,11	0,23	-0,78	1,00	1,00																						
Equity Turnover Ratio	-0,68	-0,66	0,11	0,96	-0,59	-0,58	1,00																					
Gross Profit Margin	-0,30	-0,32	0,43	-0,41	0,51	0,55	-0,31	1,00																				
Net Profit Margin	-0,10	-0,12	0,18	-0,37	0,37	0,40	-0,32	0,79	1,00																			
Return on Assets (ROA)	0,13	0,13	-0,11	0,25	-0,56	-0,54	0,06	0,09	0,47	1,00																		
Return on Equity (ROE)	0,67	0,67	-0,18	-0,54	0,30	0,26	-0,55	-0,25	-0,44	-0,61	1,00																	
Debt to Equity	-0,95	-0,94	0,33	0,72	-0,16	-0,13	0,87	0,04	-0,09	-0,14	-0,63	1,00																
Debt Ratio	-0,93	-0,93	0,43	0,23	0,39	0,42	0,46	0,36	0,14	-0,39	-0,48	0,84	1,00															
Total Liabilities to Current Assets Ratio	-0,96	-0,97	0,63	0,29	0,27	0,32	0,48	0,45	0,20	-0,25	-0,56	0,84	0,96	1,00														
Financial Leverage Ratio	-0,95	-0,94	0,33	0,72	-0,16	-0,13	0,87	0,04	-0,09	-0,14	-0,63	1,00	0,84	0,84	1,00													
Debt Coverage Ratio	-0,49	-0,49	0,45	0,30	-0,19	-0,14	0,32	0,42	0,28	0,21	-0,43	0,41	0,30	0,45	0,41	1,00												
Financial Autonomy Ratio	0,93	0,93	-0,43	-0,23	-0,39	-0,42	-0,46	-0,36	-0,14	0,39	0,48	-0,84	-1,00	-0,96	-0,84	-0,30	1,00											
Cash Flow to Debt Ratio	-0,55	-0,55	0,47	0,28	-0,13	-0,08	0,32	0,49	0,35	0,21	-0,48	0,45	0,37	0,51	0,45	0,99	-0,37	1,00										
ALTMAN Z-SCORE	0,73	0,73	-0,36	-0,05	-0,52	-0,53	-0,29	-0,18	0,18	0,75	0,06	-0,66	-0,89	-0,80	-0,66	-0,15	0,89	-0,19	1,00									
SPRINGATE S-SCORE	0,76	0,76	-0,37	-0,08	-0,50	-0,52	-0,31	-0,19	0,16	0,71	0,11	-0,69	-0,91	-0,83	-0,69	-0,18	0,91	-0,22	1,00	1,00								
ZMIJEWSKI X-SCORE	-0,88	-0,89	0,42	0,17	0,45	0,47	0,42	0,32	0,06	-0,51	-0,35	0,80	0,99	0,93	0,80	0,25	-0,99	0,31	-0,94	-0,95	1,00							
OHLSON P-PROBABILITY	-0,74	-0,72	0,16	0,87	-0,41	-0,40	0,97	-0,21	-0,26	-0,11	-0,47	0,91	0,58	0,58	0,91	0,33	-0,58	0,33	-0,44	-0,45	0,56	1,00						
Current Assets/Total Assets	0,67	0,67	-0,79	-0,37	0,23	0,15	-0,38	-0,51	-0,31	-0,33	0,63	-0,52	-0,43	-0,66	-0,52	-0,69	0,43	-0,72	0,16	0,20	-0,35	-0,35	1,00					
Non-Current Assets/Total Assets	-0,67	-0,67	0,79	0,37	-0,23	-0,15	0,38	0,51	0,31	0,33	-0,63	0,52	0,43	0,66	0,52	0,69	-0,43	0,72	-0,16	-0,20	0,35	0,35	-1,00	1,00				
Fixed Assets/Total Assets	0,59	0,59	-0,56	-0,47	0,40	0,33	-0,42	-0,42	-0,30	-0,52	0,73	-0,48	-0,31	-0,53	-0,48	-0,63	0,31	-0,65	0,00	0,05	-0,21	-0,34	0,92	-0,92	1,00			
Current Liabilities/Total Liabilities	0,69	0,70	-0,70	-0,30	0,02	-0,04	-0,39	-0,62	-0,50	-0,24	0,62	-0,57	-0,55	-0,71	-0,57	-0,46	0,55	-0,53	0,22	0,25	-0,47	-0,44	0,85	-0,85	0,76	1,00		
Non-Current Liabilities/Total Liabilities	-0,69	-0,70	0,70	0,30	-0,02	0,04	0,39	0,62	0,50	0,24	-0,62	0,57	0,55	0,71	0,57	0,46	-0,55	0,53	-0,22	-0,25	0,47	0,44	-0,85	0,85	-0,76	-1,00	1,00	
Total Bank Debt/Total Assets	-0,91	-0,92	0,46	0,17	0,43	0,46	0,41	0,44	0,21	-0,36	-0,48	0,80	0,99	0,96	0,80	0,28	-0,99	0,36	-0,86	-0,88	0,98	0,53	-0,46	0,46	-0,32	-0,61	0,61	1,00

Table B-5: Correlations Table for BIOTEP A.E.

ΓΕΚ ΤΕΡΝΑ Α.Ε.	Current Ratio	Quick Ratio	Cash Ratio	Inventory Turnover Ratio	Average Selling Period	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																																
Quick Ratio	1,00	1,00																															
Cash Ratio	0,93	0,93	1,00																														
Inventory Turnover Ratio	0,41	0,43	0,16	1,00																													
Average Selling Period	-0,33	-0,35	-0,11	-0,93	1,00																												
Working Capital Turnover Ratio	-0,88	-0,87	-0,86	-0,18	0,03	1,00																											
Asset Turnover Ratio	0,21	0,22	-0,09	0,72	-0,70	0,04	1,00																										
Fixed Asset Turnover Ratio	0,17	0,19	0,05	0,74	-0,58	-0,17	0,17	1,00																									
Equity Turnover Ratio	0,19	0,20	-0,08	0,68	-0,70	0,07	0,99	0,10	1,00																								
Gross Profit Margin	-0,03	-0,04	0,31	-0,65	0,48	-0,03	-0,64	-0,54	-0,53	1,00																							
Net Profit Margin	0,23	0,26	0,21	0,67	-0,57	-0,13	0,06	0,90	0,02	-0,25	1,00																						
EBITDA Margin	0,00	-0,02	0,34	-0,75	0,63	-0,11	-0,75	-0,56	-0,66	0,98	-0,30	1,00																					
Return on Assets (ROA)	0,30	0,32	0,17	0,87	-0,77	-0,13	0,40	0,89	0,36	-0,44	0,94	-0,53	1,00																				
Return on Equity (ROE)	0,30	0,32	0,19	0,86	-0,76	-0,12	0,39	0,88	0,35	-0,40	0,94	-0,49	1,00	1,00																			
Debt to Equity	-0,04	-0,05	0,27	-0,56	0,36	0,00	-0,64	-0,48	-0,52	0,93	-0,26	0,90	-0,44	-0,41	1,00																		
Debt Ratio	-0,05	-0,05	0,27	-0,55	0,34	0,02	-0,62	-0,48	-0,49	0,93	-0,25	0,89	-0,42	-0,39	1,00	1,00																	
Total Liabilities to Current Assets Ratio	-0,54	-0,54	-0,33	-0,35	0,20	0,47	-0,59	-0,09	-0,52	0,46	0,00	0,43	-0,19	-0,18	0,65	0,64	1,00																
Financial Leverage Ratio	-0,04	-0,05	0,27	-0,56	0,36	0,00	-0,64	-0,48	-0,52	0,93	-0,26	0,90	-0,44	-0,41	1,00	1,00	0,65	1,00															
Debt Coverage Ratio	0,17	0,16	0,19	-0,23	0,36	-0,57	-0,14	-0,02	-0,17	0,05	-0,21	0,13	-0,21	-0,23	-0,09	-0,10	-0,37	-0,09	1,00														
Financial Autonomy Ratio	0,05	0,05	-0,27	0,55	-0,34	-0,02	0,62	0,48	0,49	-0,93	0,25	-0,89	0,42	0,39	-1,00	-1,00	-0,64	-1,00	0,10	1,00													
Cash Flow to Debt Ratio	-0,14	-0,16	-0,15	-0,35	0,47	-0,25	-0,07	-0,16	-0,11	-0,03	-0,37	0,04	-0,34	-0,36	-0,20	-0,20	-0,36	-0,20	0,92	0,20	1,00												
ALTMAN Z-SCORE	0,64	0,65	0,39	0,80	-0,75	-0,37	0,87	0,28	0,86	-0,45	0,26	-0,54	0,54	0,54	-0,48	-0,46	-0,68	-0,48	-0,05	0,46	-0,16	1,00											
SPRINGATE S-SCORE	0,65	0,65	0,46	0,55	-0,56	-0,38	0,79	-0,03	0,81	-0,20	0,02	-0,29	0,29	0,30	-0,28	-0,26	-0,70	-0,28	0,00	0,26	-0,09	0,94	1,00										
ZMIJEWSKI X-SCORE	-0,22	-0,24	0,01	-0,88	0,70	0,10	-0,57	-0,86	-0,48	0,74	-0,79	0,79	-0,91	-0,90	0,77	0,76	0,42	0,77	0,11	-0,76	0,16	-0,59	-0,32	1,00									
OHLSON P-PROBABILITY	-0,09	-0,09	0,05	-0,31	0,06	0,29	-0,36	-0,43	-0,28	0,44	-0,26	0,41	-0,38	-0,37	0,65	0,64	0,59	0,65	-0,64	-0,64	-0,66	-0,35	-0,25	0,57	1,00								
Current Assets/Total Assets	0,57	0,57	0,36	0,34	-0,21	-0,48	0,63	-0,01	0,58	-0,40	-0,08	-0,38	0,13	0,12	-0,58	-0,57	-0,99	-0,58	0,36	0,57	0,34	0,73	0,78	-0,35	-0,55	1,00							
Non-Current Assets/Total Assets	-0,57	-0,57	-0,36	-0,34	0,21	0,48	-0,63	0,01	-0,58	0,40	0,08	0,38	-0,13	-0,12	0,58	0,57	0,99	0,58	-0,36	-0,57	-0,34	-0,73	-0,78	0,35	0,55	-1,00	1,00						
Fixed Assets/Total Assets	-0,46	-0,49	-0,33	-0,84	0,71	0,31	-0,30	-0,91	-0,24	0,47	-0,91	0,51	-0,94	-0,93	0,44	0,44	0,29	0,44	0,15	-0,44	0,34	-0,52	-0,27	0,87	0,31	-0,22	0,22	1,00					
Current Liabilities/Total Liabilities	-0,69	-0,70	-0,77	-0,27	0,30	0,60	0,21	-0,21	0,17	-0,31	-0,34	-0,29	-0,27	-0,28	-0,46	-0,45	-0,23	-0,46	0,15	0,45	0,50	-0,20	-0,17	-0,02	-0,38	0,18	-0,18	0,37	1,00				
Non-Current Liabilities/Total Liabilities	0,69	0,70	0,77	0,27	-0,30	-0,60	-0,21	0,21	-0,17	0,31	0,34	0,29	0,27	0,28	0,46	0,45	0,23	0,46	-0,15	-0,45	-0,50	0,20	0,17	0,02	0,38	-0,18	0,18	-0,37	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	-0,73	-0,74	-0,72	-0,47	0,55	0,66	-0,10	-0,29	-0,15	-0,15	-0,33	-0,08	-0,36	-0,37	-0,29	-0,29	0,04	-0,29	-0,10	0,29	0,25	-0,47	-0,43	0,12	-0,14	-0,10	0,10	0,46	0,85	-0,85	1,00		
Long-term Bank Debt/Total Bank Debt	0,73	0,74	0,72	0,47	-0,55	-0,66	0,10	0,29	0,15	0,15	0,33	0,08	0,36	0,37	0,29	0,29	-0,04	0,29	0,10	-0,29	-0,25	0,47	0,43	-0,12	0,14	0,10	-0,10	-0,46	-0,85	0,85	-1,00	1,00	
Total Bank Debt/Total Assets	0,71	0,72	0,72	0,53	-0,55	-0,52	-0,01	0,46	0,01	0,08	0,58	0,04	0,55	0,55	0,23	0,23	0,08	0,23	-0,28	-0,23	-0,62	0,39	0,28	-0,28	0,28	-0,06	0,06	-0,65	-0,93	0,93	-0,85	0,85	1,00

Table B-6: Correlations Table for ΓΕΚ ΤΕΡΝΑ Α.Ε.

J&P ΑΒΑΞ Α.Ε.	Current Ratio	Quick Ratio	Cash Ratio	Inventory Turnover Ratio	Average Selling Period	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																																
Quick Ratio	0,70	1,00																															
Cash Ratio	-0,11	0,04	1,00																														
Inventory Turnover Ratio	0,24	0,81	-0,16	1,00																													
Average Selling Period	0,07	-0,64	-0,11	-0,88	1,00																												
Working Capital Turnover Ratio	0,57	0,54	-0,34	0,32	-0,20	1,00																											
Asset Turnover Ratio	0,24	0,07	-0,38	0,17	-0,06	0,24	1,00																										
Fixed Asset Turnover Ratio	0,04	-0,42	-0,07	-0,43	0,59	-0,54	0,33	1,00																									
Equity Turnover Ratio	-0,50	-0,27	-0,33	0,12	-0,30	0,23	-0,42	-0,34	1,00																								
Gross Profit Margin	0,52	0,30	0,28	-0,13	0,18	0,17	-0,27	-0,11	-0,39	1,00																							
Net Profit Margin	0,14	-0,38	-0,19	-0,53	0,74	-0,35	0,10	0,59	-0,45	-0,06	1,00																						
EBITDA Margin	0,13	-0,51	-0,42	-0,67	0,88	-0,18	-0,03	0,50	-0,29	0,11	0,81	1,00																					
Return on Assets (ROA)	0,18	-0,36	-0,20	-0,54	0,76	-0,36	0,09	0,61	-0,48	0,05	0,99	0,83	1,00																				
Return on Equity (ROE)	0,44	-0,10	-0,02	-0,40	0,67	-0,22	0,12	0,56	-0,63	0,19	0,92	0,69	0,93	1,00																			
Debt to Equity	-0,67	-0,38	-0,22	0,00	-0,24	0,11	-0,03	-0,49	0,89	-0,25	-0,52	-0,23	-0,53	-0,73	1,00																		
Debt Ratio	-0,52	-0,23	-0,21	0,12	-0,32	0,27	0,16	-0,51	0,94	-0,32	-0,55	-0,31	-0,59	-0,70	0,95	1,00																	
Total Liabilities to Current Assets Ratio	-0,91	-0,68	-0,03	-0,29	-0,03	-0,24	-0,17	-0,23	0,71	-0,37	-0,27	-0,12	-0,30	-0,56	0,87	0,73	1,00																
Financial Leverage Ratio	-0,67	-0,38	-0,22	0,00	-0,24	0,11	-0,03	-0,49	0,89	-0,25	-0,52	-0,23	-0,53	-0,73	1,00	0,95	0,87	1,00															
Debt Coverage Ratio	-0,62	-0,54	0,12	-0,26	0,10	-0,43	-0,22	0,36	0,15	-0,30	-0,21	-0,13	-0,22	-0,37	0,28	0,12	0,55	0,28	1,00														
Financial Autonomy Ratio	0,52	0,23	0,21	-0,12	0,32	-0,27	-0,16	0,51	-0,94	0,32	0,55	0,31	0,59	0,70	-0,95	-1,00	-0,73	-0,95	-0,12	1,00													
Cash Flow to Debt Ratio	-0,54	-0,46	0,12	-0,23	0,12	-0,29	-0,30	0,26	0,10	-0,30	-0,21	-0,14	-0,23	-0,34	0,25	0,12	0,51	0,25	0,97	-0,12	1,00												
ALTMAN Z-SCORE	0,78	0,19	-0,35	-0,13	0,48	0,28	0,58	0,52	-0,34	0,24	0,56	0,52	0,59	0,72	-0,63	-0,49	-0,72	-0,63	-0,45	0,49	-0,44	1,00											
SPRINGATE S-SCORE	0,87	0,33	-0,29	-0,06	0,39	0,38	0,51	0,37	-0,38	0,39	0,47	0,45	0,51	0,67	-0,64	-0,51	-0,78	-0,64	-0,56	0,51	-0,55	0,98	1,00										
ZMIJEWSKI X-SCORE	-0,43	0,00	-0,07	0,31	-0,55	0,34	0,07	-0,61	0,85	-0,24	-0,80	-0,57	-0,83	-0,88	0,88	0,94	0,63	0,88	0,17	-0,94	0,17	-0,59	-0,57	1,00									
OHLSON P-PROBABILITY	-0,60	-0,43	0,07	-0,10	-0,13	0,00	0,17	-0,01	0,70	-0,50	-0,50	-0,36	-0,55	-0,63	0,66	0,71	0,68	0,66	0,65	-0,71	0,64	-0,44	-0,55	0,72	1,00								
Current Assets/Total Assets	0,92	0,75	-0,07	0,39	-0,07	0,32	0,20	0,15	-0,59	0,46	0,11	0,07	0,16	0,41	-0,74	-0,61	-0,96	-0,74	-0,57	0,61	-0,55	0,69	0,78	-0,49	-0,65	1,00							
Non-Current Assets/Total Assets	-0,92	-0,75	0,07	-0,39	0,07	-0,32	-0,20	-0,15	0,59	-0,46	-0,11	-0,07	-0,16	-0,41	0,74	0,61	0,96	0,74	0,57	-0,61	0,55	-0,69	-0,78	0,49	0,65	-1,00	1,00						
Fixed Assets/Total Assets	0,12	0,41	-0,03	0,37	-0,49	0,72	0,08	-0,89	0,50	0,06	-0,49	-0,44	-0,52	-0,43	0,46	0,59	0,14	0,46	-0,52	-0,59	-0,43	-0,22	-0,09	0,63	0,09	-0,08	0,08	1,00					
Current Liabilities/Total Liabilities	-0,62	-0,34	0,17	-0,01	-0,11	-0,90	-0,30	0,35	-0,13	-0,27	0,07	-0,02	0,08	-0,09	0,02	-0,15	0,28	0,02	0,47	0,15	0,33	-0,46	-0,54	-0,14	0,03	-0,29	0,29	-0,63	1,00				
Non-Current Liabilities/Total Liabilities	0,62	0,34	-0,17	0,01	0,11	0,90	0,30	-0,35	0,13	0,27	-0,07	0,02	-0,08	0,09	-0,02	0,15	-0,28	-0,02	-0,47	-0,15	-0,33	0,46	0,54	0,14	-0,03	0,29	-0,29	0,63	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	0,58	0,52	0,34	0,24	-0,09	-0,15	-0,02	0,38	-0,80	0,22	0,13	-0,07	0,16	0,37	-0,88	-0,81	-0,83	-0,88	-0,18	0,81	-0,21	0,39	0,43	-0,63	-0,51	0,77	-0,77	-0,42	0,16	-0,16	1,00		
Long-term Bank Debt/Total Bank Debt	-0,58	-0,52	-0,34	-0,24	0,09	0,15	0,02	-0,38	0,80	-0,22	-0,13	0,07	-0,16	-0,37	0,88	0,81	0,83	0,88	0,18	-0,81	0,21	-0,39	-0,43	0,63	0,51	-0,77	0,77	0,42	-0,16	0,16	-1,00	1,00	
Total Bank Debt/Total Assets	0,01	0,48	0,22	0,52	-0,72	0,52	0,12	-0,81	0,46	-0,10	-0,61	-0,71	-0,67	-0,53	0,38	0,55	0,12	0,38	-0,42	-0,55	-0,36	-0,36	-0,25	0,66	0,21	-0,08	0,08	0,90	-0,40	0,40	-0,21	0,21	1,00

Table B-7: Correlations Table for J&P ΑΒΑΞ Α.Ε.

INTPAKAT A.E.	Current Ratio	Quick Ratio	Cash Ratio	Inventory Turnover Ratio	Average Selling Period	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Gross Profit Margin	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																																
Quick Ratio	0,98	1,00																															
Cash Ratio	0,34	0,29	1,00																														
Inventory Turnover Ratio	-0,36	-0,23	-0,38	1,00																													
Average Selling Period	0,47	0,33	0,64	-0,92	1,00																												
Working Capital Turnover Ratio	0,21	0,14	-0,04	-0,60	0,35	1,00																											
Asset Turnover Ratio	-0,01	-0,04	-0,56	0,54	-0,52	-0,12	1,00																										
Fixed Asset Turnover Ratio	0,25	0,26	-0,61	0,42	-0,49	0,12	0,88	1,00																									
Equity Turnover Ratio	-0,31	-0,22	-0,44	0,94	-0,83	-0,64	0,68	0,51	1,00																								
Gross Profit Margin	0,45	0,32	0,63	-0,63	0,85	-0,03	-0,25	-0,38	-0,48	1,00																							
Net Profit Margin	0,77	0,79	-0,05	-0,08	0,14	0,16	0,27	0,50	-0,03	0,30	1,00																						
EBITDA Margin	0,68	0,60	0,37	-0,28	0,51	0,01	0,19	0,18	-0,14	0,78	0,77	1,00																					
Return on Assets (ROA)	0,79	0,81	-0,01	-0,10	0,16	0,17	0,25	0,50	-0,07	0,30	1,00	0,77	1,00																				
Return on Equity (ROE)	0,75	0,75	0,06	-0,18	0,26	0,16	0,21	0,43	-0,14	0,41	0,97	0,83	0,98	1,00																			
Debt to Equity	-0,44	-0,27	-0,11	0,63	-0,60	-0,50	-0,21	-0,22	0,54	-0,53	-0,30	-0,49	-0,33	-0,39	1,00																		
Debt Ratio	-0,52	-0,35	-0,12	0,60	-0,58	-0,55	-0,25	-0,29	0,50	-0,51	-0,38	-0,54	-0,41	-0,46	0,99	1,00																	
Total Liabilities to Current Assets Ratio	-0,78	-0,79	0,15	0,15	-0,19	-0,17	-0,28	-0,56	0,07	-0,27	-0,93	-0,69	-0,92	-0,91	0,38	0,45	1,00																
Financial Leverage Ratio	-0,44	-0,27	-0,11	0,63	-0,60	-0,50	-0,21	-0,22	0,54	-0,53	-0,30	-0,49	-0,33	-0,40	1,00	0,99	0,38	1,00															
Debt Coverage Ratio	-0,28	-0,31	0,48	-0,13	0,25	-0,02	-0,31	-0,37	-0,14	0,24	-0,25	0,10	-0,22	-0,08	0,17	0,20	0,33	0,17	1,00														
Financial Autonomy Ratio	0,52	0,35	0,12	-0,60	0,58	0,55	0,25	0,29	-0,50	0,51	0,38	0,54	0,41	0,46	-0,99	-1,00	-0,45	-0,99	-0,20	1,00													
Cash Flow to Debt Ratio	-0,29	-0,28	0,44	-0,04	0,16	-0,04	-0,36	-0,39	-0,08	0,16	-0,20	0,07	-0,19	-0,06	0,35	0,36	0,28	0,35	0,96	-0,36	1,00												
ALTMAN Z-SCORE	0,37	0,41	-0,30	0,56	-0,45	-0,16	0,79	0,84	0,64	-0,13	0,68	0,48	0,67	0,60	0,01	-0,09	-0,62	0,01	-0,22	0,09	-0,16	1,00											
SPRINGATE S-SCORE	0,66	0,61	-0,08	0,09	0,05	0,02	0,66	0,72	0,23	0,32	0,85	0,81	0,84	0,83	-0,45	-0,53	-0,80	-0,45	-0,22	0,53	-0,25	0,85	1,00										
ZMIJEWSKI X-SCORE	-0,74	-0,63	-0,08	0,47	-0,48	-0,47	-0,30	-0,45	0,39	-0,50	-0,75	-0,75	-0,77	-0,79	0,85	0,90	0,76	0,85	0,25	-0,90	0,34	-0,39	-0,78	1,00									
OHLSON P-PROBABILITY	-0,82	-0,87	-0,22	0,10	-0,20	-0,09	-0,03	-0,27	0,16	-0,32	-0,90	-0,69	-0,92	-0,89	0,26	0,33	0,79	0,26	0,27	-0,33	0,23	-0,50	-0,67	0,67	1,00								
Current Assets/Total Assets	0,69	0,76	-0,25	0,07	-0,05	0,02	0,26	0,56	0,09	0,05	0,91	0,53	0,90	0,85	-0,12	-0,19	-0,95	-0,12	-0,40	0,19	-0,30	0,65	0,70	-0,56	-0,81	1,00							
Non-Current Assets/Total Assets	-0,69	-0,76	0,25	-0,07	0,05	-0,02	-0,26	-0,56	-0,09	-0,05	-0,91	-0,53	-0,90	-0,85	0,12	0,19	0,95	0,12	0,40	-0,19	0,30	-0,65	-0,70	0,56	0,81	-1,00	1,00						
Fixed Assets/Total Assets	-0,42	-0,49	0,53	-0,27	0,36	-0,11	-0,49	-0,81	-0,34	0,40	-0,56	-0,10	-0,55	-0,48	-0,02	0,05	0,69	-0,02	0,31	-0,05	0,24	-0,67	-0,54	0,30	0,34	-0,74	0,74	1,00					
Current Liabilities/Total Liabilities	0,36	0,41	-0,55	0,11	-0,17	0,12	0,47	0,68	0,14	-0,06	0,76	0,42	0,75	0,74	-0,25	-0,29	-0,85	-0,25	-0,37	0,29	-0,31	0,63	0,67	-0,57	-0,56	0,87	-0,87	-0,70	1,00				
Non-Current Liabilities/Total Liabilities	-0,36	-0,41	0,55	-0,11	0,17	-0,12	-0,47	-0,68	-0,14	0,06	-0,76	-0,42	-0,75	-0,74	0,25	0,29	0,85	0,25	0,37	-0,29	0,31	-0,63	-0,67	0,57	0,56	-0,87	0,87	0,70	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	0,04	0,15	-0,51	0,53	-0,55	-0,06	0,48	0,68	0,49	-0,43	0,47	0,11	0,46	0,44	0,23	0,17	-0,54	0,23	-0,06	-0,17	0,07	0,69	0,43	-0,10	-0,28	0,65	-0,65	-0,73	0,78	-0,78	1,00		
Long-term Bank Debt/Total Bank Debt	-0,04	-0,15	0,51	-0,53	0,55	0,06	-0,48	-0,68	-0,49	0,43	-0,47	-0,11	-0,46	-0,44	-0,23	-0,17	0,54	-0,23	0,06	0,17	-0,07	-0,69	-0,43	0,10	0,28	-0,65	0,65	0,73	-0,78	0,78	-1,00	1,00	
Total Bank Debt/Total Assets	-0,32	-0,44	0,21	-0,34	0,31	0,10	-0,17	-0,47	-0,27	0,21	-0,66	-0,29	-0,67	-0,67	-0,27	-0,22	0,64	-0,27	-0,13	0,22	-0,23	-0,62	-0,46	0,17	0,57	-0,77	0,77	0,70	-0,68	0,68	-0,82	0,82	1,00

Table B-8: Correlations Table for INTPAKAT A.E.

	Current Ratio	Quick Ratio	Cash Ratio	Working Capital Turnover Ratio	Asset Turnover Ratio	Fixed Asset Turnover Ratio	Equity Turnover Ratio	Net Profit Margin	EBITDA Margin	Return on Assets (ROA)	Return on Equity (ROE)	Debt to Equity	Debt Ratio	Total Liabilities to Current Assets Ratio	Financial Leverage Ratio	Debt Coverage Ratio	Financial Autonomy Ratio	Cash Flow to Debt Ratio	ALTMAN Z-SCORE	SPRINGATE S-SCORE	ZMIJEWSKI X-SCORE	OHLSON P-PROBABILITY	Current Assets/Total Assets	Non-Current Assets/Total Assets	Fixed Assets/Total Assets	Current Liabilities/Total Liabilities	Non-Current Liabilities/Total Liabilities	Short-term Bank Debt/Total Bank Debt	Long-term Bank Debt/Total Bank Debt	Total Bank Debt/Total Assets
Current Ratio	1,00																													
Quick Ratio	1,00	1,00																												
Cash Ratio	0,83	0,83	1,00																											
Working Capital Turnover Ratio	0,03	0,03	0,00	1,00																										
Asset Turnover Ratio	0,08	0,06	-0,09	0,08	1,00																									
Fixed Asset Turnover Ratio	0,12	0,11	0,05	0,14	0,68	1,00																								
Equity Turnover Ratio	-0,11	-0,15	-0,18	-0,15	0,57	0,23	1,00																							
Net Profit Margin	0,14	0,12	-0,03	0,04	0,47	0,18	0,38	1,00																						
EBITDA Margin	0,14	0,13	0,04	0,02	0,22	0,09	0,17	0,66	1,00																					
Return on Assets (ROA)	0,16	0,15	0,00	0,38	0,56	0,45	0,19	0,55	0,33	1,00																				
Return on Equity (ROE)	0,06	0,06	0,00	0,29	0,21	0,31	-0,25	0,26	0,13	0,55	1,00																			
Debt to Equity	-0,06	-0,10	-0,10	-0,08	0,28	0,05	0,88	0,29	0,07	0,12	-0,39	1,00																		
Debt Ratio	-0,40	-0,39	-0,26	-0,09	-0,43	-0,23	-0,15	-0,18	0,06	-0,51	0,09	-0,24	1,00																	
Total Liabilities to Current Assets Ratio	-0,24	-0,22	-0,13	0,32	-0,39	-0,08	-0,37	-0,28	-0,12	0,10	0,22	-0,33	0,35	1,00																
Financial Leverage Ratio	-0,06	-0,10	-0,10	-0,08	0,28	0,05	0,88	0,29	0,07	0,12	-0,39	1,00	-0,24	-0,33	1,00															
Debt Coverage Ratio	-0,09	-0,10	-0,17	-0,03	0,57	0,65	0,24	0,27	0,15	0,29	0,17	0,14	-0,13	-0,28	0,14	1,00														
Financial Autonomy Ratio	0,40	0,39	0,26	0,09	0,43	0,23	0,15	0,18	-0,06	0,51	-0,09	0,24	-1,00	-0,35	0,24	0,13	1,00													
Cash Flow to Debt Ratio	0,00	0,01	-0,03	0,00	0,54	0,86	0,11	0,10	0,05	0,26	0,18	-0,03	-0,11	-0,14	-0,03	0,78	0,11	1,00												
ALTMAN Z-SCORE	0,59	0,58	0,45	0,20	0,38	0,35	0,04	0,03	-0,11	0,55	0,06	0,08	-0,81	-0,08	0,08	0,01	0,81	0,18	1,00											
SPRINGATE S-SCORE	0,07	0,07	-0,01	0,53	0,27	0,28	0,03	0,14	0,07	0,75	0,43	0,00	-0,28	0,51	0,00	0,02	0,28	0,04	0,46	1,00										
ZMIJEWSKI X-SCORE	-0,39	-0,38	-0,24	-0,13	-0,47	-0,27	-0,16	-0,24	0,01	-0,61	0,01	-0,24	0,99	0,31	-0,24	-0,16	-0,99	-0,13	-0,82	-0,37	1,00									
OHLSON P-PROBABILITY	-0,48	-0,48	-0,32	-0,19	-0,51	-0,47	0,13	-0,30	-0,11	-0,64	-0,43	0,16	0,68	0,18	0,16	-0,37	-0,68	-0,34	-0,68	-0,42	0,72	1,00								
Current Assets/Total Assets	-0,04	-0,06	-0,18	-0,12	0,65	0,36	0,61	0,42	0,25	0,11	0,03	0,37	-0,05	-0,65	0,37	0,49	0,05	0,33	-0,10	-0,19	-0,06	-0,09	1,00							
Non-Current Assets/Total Assets	0,04	0,06	0,18	0,12	-0,65	-0,36	-0,61	-0,42	-0,25	-0,11	-0,03	-0,37	0,05	0,65	-0,37	-0,49	-0,05	-0,33	0,10	0,19	0,06	0,09	-1,00	1,00						
Fixed Assets/Total Assets	-0,10	-0,08	-0,14	-0,08	0,07	-0,29	-0,17	0,25	0,10	0,13	0,03	-0,12	-0,29	-0,26	-0,12	-0,04	0,29	-0,12	0,01	-0,05	-0,29	-0,17	-0,15	0,15	1,00					
Current Liabilities/Total Liabilities	-0,56	-0,55	-0,53	-0,16	0,08	0,08	0,07	0,01	0,11	-0,33	-0,04	-0,18	0,60	0,01	-0,18	0,17	-0,60	0,19	-0,69	-0,34	0,60	0,48	0,39	-0,39	-0,08	1,00				
Non-Current Liabilities/Total Liabilities	0,56	0,55	0,53	0,16	-0,08	-0,08	-0,07	-0,01	-0,11	0,33	0,04	0,18	-0,60	-0,01	0,18	-0,17	0,60	-0,19	0,69	0,34	-0,60	-0,48	-0,39	0,39	0,08	-1,00	1,00			
Short-term Bank Debt/Total Bank Debt	-0,49	-0,47	-0,37	-0,14	-0,16	-0,13	-0,16	-0,13	0,02	-0,38	-0,02	-0,35	0,63	0,28	-0,35	-0,10	-0,63	-0,01	-0,64	-0,27	0,63	0,55	0,02	-0,02	0,02	0,84	-0,84	1,00		
Long-term Bank Debt/Total Bank Debt	0,49	0,47	0,37	0,14	0,16	0,13	0,16	0,13	-0,02	0,38	0,02	0,35	-0,63	-0,28	0,35	0,10	0,63	0,01	0,64	0,27	-0,63	-0,55	-0,02	0,02	-0,02	-0,84	0,84	-1,00	1,00	
Total Bank Debt/Total Assets	-0,30	-0,28	-0,16	-0,04	-0,52	-0,25	-0,34	-0,28	0,01	-0,51	0,12	-0,41	0,96	0,45	-0,41	-0,20	-0,96	-0,14	-0,71	-0,24	0,96	0,59	-0,24	0,24	-0,28	0,48	-0,48	0,57	-0,57	1,00

Table B-9: Aggregate Correlations Table

Appendix C: Primary and Secondary Data Tables

ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	22,836,157.85 €	21,762,982.04 €	21,675,987.00 €	22,783,170.00 €	21,341,827.00 €	20,135,314.00 €	20,852,058.00 €	18,466,268.00 €	17,705,414.00 €	18,053,616.00 €
Non-Current Assets	11,578,587.98 €	11,229,931.41 €	11,170,493.00 €	11,077,198.00 €	10,382,496.00 €	10,232,514.00 €	10,035,522.00 €	10,079,376.00 €	10,120,270.00 €	10,407,318.00 €
Fixed Assets	8,546,843.48 €	8,427,721.60 €	8,315,359.00 €	8,171,781.00 €	8,036,383.00 €	8,038,909.00 €	7,929,736.00 €	7,699,564.00 €	9,013,826.00 €	6,134,004.00 €
Other Non-Current Assets	3,031,744.50 €	2,802,209.81 €	2,855,134.00 €	2,905,417.00 €	2,346,113.00 €	2,193,605.00 €	2,105,786.00 €	2,379,812.00 €	1,106,444.00 €	9,794,314.00 €
Current Assets	11,257,569.87 €	10,533,050.63 €	10,505,494.00 €	11,705,972.00 €	10,959,331.00 €	9,902,800.00 €	10,816,536.00 €	8,386,892.00 €	7,585,144.00 €	7,646,298.00 €
Inventory	383,573.12 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €
Accounts Receivables	9,969,877.68 €	9,875,016.54 €	10,266,867.00 €	10,328,056.00 €	10,558,987.00 €	7,389,804.00 €	7,961,883.00 €	7,490,848.00 €	7,472,433.00 €	7,470,627.00 €
Cash and Cash Equivalents	904,119.07 €	658,034.09 €	238,627.00 €	1,377,916.00 €	400,344.00 €	2,512,996.00 €	2,854,653.00 €	896,044.00 €	112,711.00 €	175,671.00 €
TOTAL EQUITY	7,794,638.87 €	6,678,598.39 €	6,363,989.00 €	9,305,889.00 €	7,679,680.00 €	7,637,344.00 €	7,435,040.00 €	9,178,835.00 €	8,777,591.00 €	8,508,601.00 €
Stakeholders' Equity	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €	7,295,775.00 €
Reserves	6,962,781.27 €	6,962,781.27 €	6,962,781.00 €	6,962,781.00 €	6,962,781.00 €	7,992,212.00 €	7,992,212.00 €	8,049,364.00 €	9,184,113.00 €	9,184,113.00 €
Accumulated Retained Earnings	-6,463,917.40 €	-7,579,957.88 €	-7,894,567.00 €	-4,952,670.00 €	-6,578,876.00 €	-7,650,643.00 €	-7,852,947.00 €	-6,166,304.00 €	-7,702,297.00 €	-7,971,287.00 €
TOTAL LIABILITIES	15,041,518.99 €	15,084,383.65 €	15,311,999.00 €	13,477,282.00 €	13,662,146.00 €	12,497,970.00 €	13,417,018.00 €	9,287,432.00 €	8,927,822.00 €	9,545,015.00 €
Non-Current Liabilities (w/o Bank Debt)	1,364.00 €	1,749.35 €	3,166.00 €	6,858.00 €	1,138.00 €	1,461.00 €	6,395.00 €	62,079.00 €	6,289.00 €	36,289.00 €
Long-term Provisions	134,000.00 €	134,000.00 €	134,000.00 €	134,000.00 €	134,000.00 €	134,000.00 €	134,000.00 €	149,000.00 €	149,000.00 €	149,000.00 €
Long-term Bank Debt (1 to 5 years)	7,783,757.38 €	7,801,882.93 €	7,801,883.00 €	5,773,010.00 €	5,705,843.00 €	4,423,545.00 €	3,968,137.00 €	3,819,529.00 €	3,779,096.00 €	3,779,096.00 €
Total Non-Current Liabilities	7,919,121.38 €	7,937,632.28 €	7,939,049.00 €	5,913,868.00 €	5,840,981.00 €	4,559,006.00 €	4,108,532.00 €	3,975,477.00 €	3,990,175.00 €	3,964,385.00 €
Current Liabilities (w/o Bank Debt)	2,515,700.76 €	2,458,586.08 €	2,421,124.00 €	2,306,497.00 €	2,190,882.00 €	4,146,105.00 €	5,335,419.00 €	4,909,967.00 €	4,923,462.00 €	5,290,733.00 €
Short-term Bank Debt (up to 1 year)	4,606,696.85 €	4,688,165.29 €	4,951,826.00 €	5,356,917.00 €	5,630,283.00 €	3,792,859.00 €	3,973,067.00 €	401,988.00 €	14,185.00 €	289,897.00 €
Total Current Liabilities	7,122,397.61 €	7,146,751.37 €	7,372,950.00 €	7,563,414.00 €	7,821,165.00 €	7,938,964.00 €	9,308,486.00 €	5,311,955.00 €	4,937,647.00 €	5,580,630.00 €
TOTAL EQUITY AND LIABILITIES	22,836,157.86 €	21,762,982.04 €	21,675,988.00 €	22,783,171.00 €	21,341,826.00 €	20,135,314.00 €	20,852,058.00 €	18,466,267.00 €	17,705,413.00 €	18,053,616.00 €
Total Bank Debt	12,390,454.23 €	12,490,048.22 €	12,753,709.00 €	11,129,927.00 €	11,336,126.00 €	8,216,404.00 €	7,941,204.00 €	4,221,517.00 €	3,793,281.00 €	4,068,993.00 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	95,573.00 €	223,827.00 €
Production Cost	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	-91,588.00 €	-144,991.00 €
Gross Income	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	3,985.00 €	78,836.00 €
Other Income	1,333,958.25 €	168,405.57 €	323,052.00 €	3,969,652.00 €	2.00 €	1,822,958.00 €	1,902,367.00 €	3,128,767.00 €	307,933.00 €	23,153.00 €
Operational Cost	-344,576.67 €	-501,232.37 €	-234,788.00 €	-362,103.00 €	-526,109.00 €	-455,409.00 €	-1,222,064.00 €	-939,716.00 €	-188,211.00 €	-237,575.00 €
Other Costs	-914,807.39 €	-293,004.66 €	-100,867.00 €	-191,981.00 €	-163,333.00 €	-271,792.00 €	-720,014.00 €	-519,348.00 €	-1,658,557.00 €	-15,379.00 €
Operation Results	74,574.19 €	-625,831.46 €	-12,603.00 €	3,415,568.00 €	-689,440.00 €	1,095,757.00 €	-39,711.00 €	1,669,703.00 €	-1,864,850.00 €	-150,965.00 €
Financial Results	-375,334.37 €	-260,337.85 €	-354,932.00 €	-425,827.00 €	-388,842.00 €	-418,234.00 €	-51,251.00 €	-108,735.00 €	-9,538.00 €	-29,164.00 €
Earnings before Tax	-300,760.18 €	-886,169.31 €	-367,535.00 €	2,989,741.00 €	-1,078,282.00 €	677,523.00 €	-90,962.00 €	1,560,968.00 €	-1,874,388.00 €	-180,129.00 €
Tax	-1,645,517.93 €	-229,855.24 €	52,925.00 €	50,283.00 €	-556,801.00 €	-470,533.00 €	-107,803.00 €	182,164.00 €	338,374.00 €	-88,861.00 €
Net Income	-1,946,278.11 €	-1,116,024.55 €	-314,610.00 €	3,040,024.00 €	-1,635,083.00 €	206,990.00 €	-198,765.00 €	1,743,132.00 €	-1,536,014.00 €	-268,990.00 €
Actuarial Gains / Losses	-387.00 €	-15.94 €	0.00 €	0.00 €	0.00 €	-249,325.00 €	-3,540.00 €	665.00 €	1,134,770.00 €	0.00 €
Total Net Income	-1,946,665.11 €	-1,116,040.49 €	-314,610.00 €	3,040,024.00 €	-1,635,083.00 €	-42,335.00 €	-202,305.00 €	1,743,797.00 €	-401,244.00 €	-268,990.00 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-12,949,822.00 €	8,247,173.00 €	28,466,704.00 €	-38,444,455.00 €	815,443.00 €	11,617,685.00 €	-22,665,348.00 €	14,699,325.00 €	100,209,464.00 €	42,559,425.00 €
Investment Cash Flows	-11,122,221.00 €	-16,103,655.00 €	-19,250,594.00 €	-7,944,446.00 €	-3,204,278.00 €	-8,408,457.00 €	-20,347,085.00 €	-67,598,955.00 €	-123,003,640.00 €	27,816,688.00 €
Financing Cash Flows	29,649,072.00 €	-9,428,320.00 €	18,512,660.00 €	-16,122,454.00 €	-293,826.00 €	470,174.00 €	46,037,924.00 €	62,734,627.00 €	125,057,540.00 €	-88,983,629.00 €
Net increase / decrease in cash and cash equivalents	5,577,029.00 €	-17,284,802.00 €	27,728,770.00 €	-30,266,447.00 €	-2,682,661.00 €	3,679,402.00 €	3,025,501.00 €	9,834,997.00 €	102,263,364.00 €	-18,607,516.00 €
Acquisitions	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	0.00 €	-2,460,753.00 €	0.00 €
Opening cash and cash equivalents	25,747,722.00 €	31,324,751.00 €	14,039,950.00 €	41,768,720.00 €	11,502,273.00 €	8,819,611.00 €	12,499,013.00 €	15,524,514.00 €	25,359,511.00 €	125,162,122.00 €
Closing cash and cash equivalents	31,324,751.00 €	14,039,949.00 €	41,768,720.00 €	11,502,273.00 €	8,819,612.00 €	12,499,013.00 €	15,524,514.00 €	25,359,511.00 €	125,162,122.00 €	106,554,606.00 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	200,744.61 €	-506,719.51 €	99,760.00 €	3,550,965.00 €	-554,042.00 €	1,239,254.00 €	88,216.00 €	1,794,788.00 €	-321,294.00 €	-64,058.00 €
Backlog	276,000,000.00 €	173,000,000.00 €	476,000,000.00 €	440,000,000.00 €	375,400,000.00 €	380,900,000.00 €	556,400,000.00 €	799,400,000.00 €	2,300,000,000.00 €	3,440,000,000.00 €
Working Capital	14,224,855.00 €	-9,479,763.00 €	17,727,617.00 €	33,156,861.00 €	3,025,470.00 €	-14,553,938.00 €	-12,847,702.00 €	-46,209,307.00 €	10,302,714.00 €	-11,310,143.00 €
Market Equity Value	8,100,000.00 €	9,500,000.00 €	32,000,000.00 €	30,000,000.00 €	49,000,000.00 €	46,000,000.00 €	154,000,000.00 €	122,000,000.00 €	750,000,000.00 €	810,000,000.00 €

Table C-1: Financial Statement Information of ΠΡΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	1,0753	0,9476	1,1043	1,1310	1,0142	0,9334	0,9396	0,8146	1,0103	0,9899
Quick Ratio	1,0025	0,8677	1,0188	1,0772	0,9395	0,8749	0,8955	0,7738	0,9815	0,9583
Cash Ratio	0,1659	0,0777	0,2458	0,0455	0,0414	0,0572	0,0730	0,1017	0,1246	0,0950
Inventory Turnover Ratio	9,1434	10,8510	8,7066	15,4173	16,3773	12,2537	21,2240	20,3672	12,8627	31,9315
Average Selling Period	39,9195	33,6375	41,9222	23,6747	22,2870	29,7870	17,1975	17,9210	28,3767	11,4307
Working Capital Turnover Ratio	10,3758	-19,2393	8,3016	7,0014	94,5342	-11,9903	-16,7221	-4,8782	39,9998	-110,9556
Asset Turnover Ratio	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
Fixed Asset Turnover Ratio	2,2925	3,0405	2,2952	7,0680	9,7110	4,1617	3,6849	2,0610	1,9661	6,9516
Equity Turnover Ratio	2,4107	3,6530	2,2871	3,4017	4,1342	3,3088	5,1425	3,7378	2,5500	7,2536
Gross Profit Margin	0,1486	0,1410	0,1405	0,0945	0,0892	0,1013	0,0725	0,0809	0,0980	0,0985
Net Profit Margin	-0,0088	-0,0370	-0,0529	0,0426	0,0047	-0,0963	-0,1275	-0,1437	-0,0044	0,0010
EBITDA Margin	0,0859	0,0679	0,0675	0,0426	0,0550	0,0094	-0,0262	-0,0196	0,0336	0,0668
Return on Assets (ROA)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
Return on Equity (ROE)	-0,0213	-0,1351	-0,1209	0,1450	0,0195	-0,3188	-0,6558	-0,5371	-0,0112	0,0076
Debt to Equity	3,8360	4,7662	4,1031	4,1805	3,5514	5,0933	7,7514	6,0603	7,8318	7,7396
Debt Ratio	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
Total Liabilities to Current Assets Ratio	1,1567	1,3890	1,4067	0,9968	1,1373	1,3165	1,6203	1,7997	1,2472	1,2057
Financial Leverage Ratio	4,8360	5,7662	5,1031	5,1805	4,5514	6,0933	8,7514	7,0603	8,8311	8,7396
Debt Coverage Ratio	-0,0551	0,0347	0,1078	-0,1348	0,0033	0,0432	-0,0700	0,0402	0,0792	0,0318
Financial Autonomy Ratio	0,2068	0,1734	0,1960	0,1930	0,2197	0,1641	0,1143	0,1416	0,1132	0,1144
Cash Flow to Debt Ratio	-0,1240	0,0833	0,2671	-0,4791	0,0101	0,1310	-0,1607	0,0961	0,4034	0,1694
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
X2 (Retained Earnings/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
X3 (EBITDA/Total Assets)	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
X4 (Market Equity Value/Total Liabilities)	0,0345	0,0399	0,1212	0,1052	0,1994	0,1712	0,4756	0,3338	0,5926	0,6049
X5 (Sales/Total Assets)	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
ALTMAN Z-SCORE	0,7120	0,7271	0,6524	0,9639	1,2105	0,5350	0,6751	0,4588	0,6832	1,3682
X1 (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
X2 (EBITDA/Total Assets)	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
X3 (EBT/Current Liabilities)	-0,0234	-0,0213	-0,0203	0,0022	0,0106	-0,0590	-0,1092	-0,0985	0,0084	0,0127
X4 (Sales/Total Assets)	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
SPRINGATE S-SCORE	0,3649	0,3375	0,3144	0,4467	0,5337	0,1473	0,0796	0,0032	0,1583	0,5030
X1 (Net Income/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
X2 (Total Liabilities/Total Assets)	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
X3 (Current Assets/Current Liabilities)	1,0753	0,9476	1,1043	1,1310	1,0142	0,9334	0,9396	0,8146	1,0103	0,9899
ZMIJEWSKI X-SCORE	0,1929	0,4676	0,3415	0,1250	0,0799	0,6508	1,0360	0,8852	0,7101	0,6932
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	6,4714	6,4610	6,5151	6,5476	6,4964	6,5105	6,5570	6,5831	7,0833	7,0946
B (Total Liabilities/Total Assets)	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
C (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
D (Current Liabilities/Current Assets)	0,9299	1,0553	0,9055	0,8842	0,9860	1,0713	1,0643	1,2275	0,9898	1,0102
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
G (Operating Cash Flows/Total Liabilities)	-0,0551	0,0347	0,1078	-0,1348	0,0033	0,0432	-0,0700	0,0402	0,0792	0,0318
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,2622	-0,6759	-0,0715	1,0000	-0,7596	-1,0000	-0,2394	-0,0835	0,8942	1,0000
OHLSON O-SCORE	0,8057	1,5059	1,0492	0,4733	1,1815	2,0673	2,1985	1,8599	0,8866	0,9235
OHLSON P-PROBABILITY	69,12%	81,84%	74,06%	61,62%	76,52%	88,77%	90,01%	86,53%	70,82%	71,57%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
Net Earnings/Total Assets	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
EBITDA/Total Assets	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
Backlog/Total Assets	0,9322	0,6009	1,4496	1,2446	1,1922	1,1853	1,5218	1,8774	1,6115	2,2751
Current Assets/Total Assets	0,6858	0,5951	0,5716	0,8096	0,6861	0,6349	0,5467	0,4769	0,7111	0,7345
Non-Current Assets/Total Assets	0,3142	0,4049	0,4284	0,1904	0,3139	0,3651	0,4533	0,5231	0,2889	0,2655
Fixed Assets/Total Assets	0,2175	0,2084	0,1953	0,0929	0,0935	0,1305	0,1595	0,2569	0,1469	0,1194
Current Liabilities/Total Liabilities	0,8040	0,7598	0,6437	0,8870	0,8670	0,8138	0,6568	0,6821	0,7937	0,8379
Non-Current Liabilities/Total Liabilities	0,1960	0,2402	0,3563	0,1130	0,1330	0,1862	0,3432	0,3179	0,2063	0,1621
Short-term Bank Debt/Total Bank Debt	0,5707	0,4446	0,3673	0,6897	0,8669	0,7525	0,4949	0,5328	0,7699	0,9505
Long-term Bank Debt/Total Bank Debt	0,4293	0,5554	0,6327	0,3103	0,1331	0,2475	0,5051	0,4672	0,2301	0,0495
Total Bank Debt/Total Assets	0,3528	0,3439	0,3246	0,2270	0,2553	0,2760	0,3859	0,3591	0,1740	0,1661
Operational Cash Flows/Total Assets	-0,0437	0,0286	0,0867	-0,1087	0,0026	0,0362	-0,0620	0,0345	0,0702	0,0281
Total Cash Flows/Total Assets	0,0188	-0,0600	0,0844	-0,0856	-0,0085	0,0114	0,0083	0,0231	0,0717	-0,0123

Table C-2: Financial Indicator – Variable Calculation of ΙΠΟΟΔΕΥΤΙΚΗ Α.Τ.Ε.

Ο ΚΕΚΡΟΨ Α.Ε.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	12.066.498,00 €	11.021.428,00 €	13.381.292,00 €	9.087.505,00 €	7.963.685,00 €	8.515.594,00 €	8.107.226,00 €	21.032.175,00 €	22.125.436,00 €	17.795.121,00 €
Non-Current Assets	11.197.804,00 €	10.362.976,00 €	10.318.880,00 €	7.277.057,00 €	7.158.922,00 €	6.846.362,00 €	6.862.294,00 €	20.632.665,00 €	21.398.499,00 €	13.195.570,00 €
Fixed Assets	693.908,00 €	687.245,00 €	681.075,00 €	674.832,00 €	669.634,00 €	666.538,00 €	663.625,00 €	657.050,00 €	655.029,00 €	653.710,00 €
Other Non-Current Assets	10.503.896,00 €	9.675.731,00 €	9.637.805,00 €	6.602.225,00 €	6.489.288,00 €	6.179.824,00 €	6.198.669,00 €	19.975.615,00 €	20.743.470,00 €	12.541.860,00 €
Current Assets	868.694,00 €	658.452,00 €	3.062.412,00 €	1.810.448,00 €	804.763,00 €	1.669.232,00 €	1.244.932,00 €	399.510,00 €	726.937,00 €	4.599.551,00 €
Inventory	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	493.262,00 €	0,00 €
Accounts Receivables	688.385,00 €	655.097,00 €	573.582,00 €	381.710,00 €	614.138,00 €	1.070.860,00 €	514.393,00 €	310.866,00 €	216.101,00 €	218.623,00 €
Cash and Cash Equivalents	180.309,00 €	3.355,00 €	2.488.830,00 €	1.428.738,00 €	190.625,00 €	598.372,00 €	730.539,00 €	88.644,00 €	17.574,00 €	4.380.928,00 €
TOTAL EQUITY	3.914.843,00 €	2.658.408,00 €	6.421.068,00 €	4.162.760,00 €	3.519.197,00 €	3.466.968,00 €	2.701.483,00 €	13.130.714,00 €	13.432.089,00 €	12.410.220,00 €
Stakeholders' Equity	7.967.764,00 €	7.967.764,00 €	10.212.232,00 €	10.212.232,00 €	10.212.232,00 €	10.212.232,00 €	10.212.232,00 €	7.241.612,00 €	7.241.612,00 €	7.241.612,00 €
Reserves	1.042.966,00 €	460.331,00 €	321.905,00 €	-1.817.717,00 €	-1.895.265,00 €	-1.963.309,00 €	-1.918.459,00 €	-1.902.535,00 €	-1.683.002,00 €	-1.681.259,00 €
Accumulated Retained Earnings	-5.095.887,00 €	-5.769.687,00 €	-4.113.069,00 €	-4.231.755,00 €	-4.797.770,00 €	-4.781.955,00 €	-5.592.290,00 €	7.791.637,00 €	7.873.479,00 €	6.849.867,00 €
TOTAL LIABILITIES	8.151.653,00 €	8.363.021,00 €	6.960.222,00 €	4.924.743,00 €	4.444.486,00 €	5.048.624,00 €	5.405.742,00 €	7.901.458,00 €	8.693.346,00 €	5.384.900,00 €
Non-Current Liabilities (w/o Bank Debt)	2.267.605,00 €	1.984.074,00 €	1.366.675,00 €	425.697,00 €	368.469,00 €	362.829,00 €	331.312,00 €	2.762.470,00 €	2.922.524,00 €	2.568.697,00 €
Long-term Provisions	100.005,00 €	87.152,00 €	88.291,00 €	76.171,00 €	8.747,00 €	4.451,00 €	4.830,00 €	7.560,00 €	7.560,00 €	7.560,00 €
Long-term Bank Debt (1 to 5 years)	4.100.000,00 €	225.023,00 €	3.550.000,00 €	3.500.000,00 €	3.450.000,00 €	4.515.378,00 €	3.150.000,00 €	4.873.058,00 €	2.352.057,00 €	2.150.599,00 €
Total Non-Current Liabilities	6.467.610,00 €	2.296.249,00 €	5.004.966,00 €	4.001.868,00 €	3.827.216,00 €	4.882.658,00 €	3.486.142,00 €	7.640.538,00 €	5.282.141,00 €	4.726.856,00 €
Current Liabilities (w/o Bank Debt)	873.138,00 €	1.066.708,00 €	1.203.134,00 €	842.799,00 €	538.103,00 €	88.883,00 €	149.653,00 €	173.188,00 €	263.394,00 €	285.166,00 €
Short-term Bank Debt (up to 1 year)	810.905,00 €	5.000.064,00 €	752.122,00 €	80.076,00 €	79.167,00 €	77.083,00 €	1.769.947,00 €	87.912,00 €	3.147.811,00 €	372.878,00 €
Total Current Liabilities	1.684.043,00 €	6.066.772,00 €	1.955.256,00 €	922.875,00 €	617.270,00 €	165.966,00 €	1.919.600,00 €	261.100,00 €	3.411.205,00 €	658.044,00 €
TOTAL EQUITY AND LIABILITIES	12.066.496,00 €	11.021.429,00 €	13.381.290,00 €	9.087.503,00 €	7.963.683,00 €	8.515.592,00 €	8.107.225,00 €	21.032.172,00 €	22.125.435,00 €	17.795.120,00 €
Total Bank Debt	4.910.905,00 €	5.225.087,00 €	4.302.122,00 €	3.580.076,00 €	3.529.167,00 €	4.592.461,00 €	4.919.947,00 €	4.960.970,00 €	5.499.868,00 €	2.523.477,00 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	0,00 €	14.835,00 €	14.835,00 €	13.306,00 €	11.400,00 €	14.400,00 €	6.270,00 €	13.778.316,00 €	439.216,00 €	4.040.217,00 €
Production Cost	0,00 €	-323.849,00 €	-282.722,00 €	-249.927,00 €	-295.093,00 €	-249.430,00 €	-434.714,00 €	-259.383,00 €	-211.615,00 €	-4.817.175,00 €
Gross Income	0,00 €	-309.014,00 €	-267.887,00 €	-236.621,00 €	-283.693,00 €	-235.030,00 €	-428.444,00 €	13.518.933,00 €	227.601,00 €	-776.958,00 €
Other Income	17.000,00 €	1.416,00 €	1.331,00 €	432.381,00 €	1.304,00 €	687.169,00 €	2.971,00 €	1.661,00 €	8.556,00 €	794,00 €
Operational Cost	-289.000,00 €	-129.708,00 €	-202.829,00 €	-173.983,00 €	-173.777,00 €	-206.971,00 €	-207.588,00 €	-227.256,00 €	-221.810,00 €	-276.467,00 €
Other Costs	-524.000,00 €	-8.282,00 €	-103.304,00 €	67.104,00 €	53.360,00 €	-49.312,00 €	60.345,00 €	-195.320,00 €	519.401,00 €	-872,00 €
Operation Results	-796.000,00 €	-445.588,00 €	-572.689,00 €	88.881,00 €	-402.806,00 €	195.856,00 €	-572.716,00 €	13.098.018,00 €	533.748,00 €	-1.053.503,00 €
Financial Results	-276.000,00 €	-270.577,00 €	-303.868,00 €	-178.708,00 €	-172.846,00 €	-178.244,00 €	-242.132,00 €	-254.389,00 €	-353.772,00 €	-324.057,00 €
Earnings before Tax	-1.072.000,00 €	-716.165,00 €	-876.557,00 €	-89.827,00 €	-575.652,00 €	17.612,00 €	-814.848,00 €	12.843.629,00 €	179.976,00 €	-1.377.560,00 €
Tax	-227.000,00 €	42.364,00 €	-55.615,00 €	-28.859,00 €	9.638,00 €	-5.656,00 €	4.513,00 €	-2.427.471,00 €	-98.135,00 €	353.948,00 €
Net Income	-1.299.000,00 €	-673.801,00 €	-932.172,00 €	-118.686,00 €	-566.014,00 €	11.956,00 €	-810.335,00 €	10.416.158,00 €	81.841,00 €	-1.023.612,00 €
Actuarial Gains / Losses	-219.000,00 €	-582.635,00 €	-138.426,00 €	-2.139.622,00 €	-77.548,00 €	-68.043,00 €	44.850,00 €	13.073,00 €	219.533,00 €	1.743,00 €
Total Net Income	-1.518.000,00 €	-1.256.436,00 €	-1.070.598,00 €	-2.258.308,00 €	-643.562,00 €	-56.087,00 €	-765.485,00 €	10.429.231,00 €	301.374,00 €	-1.021.869,00 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-635.000,00 €	-349.975,00 €	-1.237.802,00 €	-368.695,00 €	-1.185.125,00 €	-871.179,00 €	-115.311,00 €	-558.395,00 €	-465.822,00 €	-1.080.121,00 €
Investment Cash Flows	-258.000,00 €	21,00 €	-157.311,00 €	-62.397,00 €	-2.988,00 €	228.926,00 €	-2.522,00 €	-33.500,00 €	-45.249,00 €	4.293.165,00 €
Financing Cash Flows	-100.000,00 €	173.000,00 €	3.880.587,00 €	-629.000,00 €	-50.000,00 €	1.050.000,00 €	250.000,00 €	-50.000,00 €	440.000,00 €	-3.041.000,00 €
Net increase / decrease in cash and cash equivalents	-993.000,00 €	-176.954,00 €	2.485.474,00 €	-1.060.092,00 €	-1.238.113,00 €	407.747,00 €	132.167,00 €	-641.895,00 €	-71.071,00 €	172.044,00 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Opening cash and cash equivalents	1.173.000,00 €	180.309,00 €	3.355,00 €	2.488.830,00 €	1.428.738,00 €	190.625,00 €	598.372,00 €	730.539,00 €	88.644,00 €	17.574,00 €
Closing cash and cash equivalents	180.000,00 €	3.355,00 €	2.488.829,00 €	1.428.738,00 €	190.625,00 €	598.372,00 €	730.539,00 €	88.644,00 €	17.573,00 €	189.618,00 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	-789.000,00 €	-438.925,00 €	-565.929,00 €	-38.669,00 €	-397.608,00 €	200.982,00 €	-567.182,00 €	13.104.068,00 €	541.018,00 €	-1.048.724,00 €
Backlog	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Working Capital	-815.349,00 €	-5.408.320,00 €	1.107.156,00 €	887.573,00 €	187.493,00 €	1.503.266,00 €	-674.668,00 €	138.410,00 €	-2.684.268,00 €	3.941.507,00 €
Market Equity Value	8.320.000,00 €	17.820.000,00 €	21.390.000,00 €	25.350.000,00 €	43.570.000,00 €	41.590.000,00 €	34.660.000,00 €	33.270.000,00 €	27.330.000,00 €	37.430.000,00 €

Table C-3: Financial Statement Information of Ο ΚΕΚΡΟΨ Α.Ε.

Ο ΚΕΚΡΟΥ Α.Ε.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	0,5158	0,1085	1,5662	1,9617	1,3037	10,0577	0,6485	1,5301	0,2131	6,9897
Quick Ratio	0,5158	0,1085	1,5662	1,9617	1,3037	10,0577	0,6485	1,5301	0,0685	6,9897
Cash Ratio	0,1071	0,0006	1,2729	1,5481	0,3088	3,6054	0,3806	0,3395	0,0052	6,6575
Inventory Turnover Ratio	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	0,4290	#ΔΙΑΠ/Ο!
Average Selling Period	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	#ΔΙΑΠ/Ο!	850,7933	#ΔΙΑΠ/Ο!
Working Capital Turnover Ratio	0,0000	-0,0027	0,0134	0,0150	0,0608	0,0096	-0,0093	99,5471	-0,1636	1,0250
Asset Turnover Ratio	0,0000	0,0013	0,0011	0,0015	0,0014	0,0017	0,0008	0,6551	0,0199	0,2270
Fixed Asset Turnover Ratio	0,0000	0,0216	0,0218	0,0197	0,0170	0,0216	0,0094	20,9700	0,6705	6,1804
Equity Turnover Ratio	0,0000	0,0056	0,0023	0,0032	0,0032	0,0042	0,0023	1,0493	0,0327	0,3256
Gross Profit Margin	#ΔΙΑΠ/Ο!	-20,8301	-18,0578	-17,7830	-24,8854	-16,3215	-68,3324	0,9812	0,5182	-0,1923
Net Profit Margin	#ΔΙΑΠ/Ο!	-84,6940	-72,1670	-169,7210	-56,4528	-3,8949	-122,0869	0,7569	0,6862	-0,2529
EBITDA Margin	#ΔΙΑΠ/Ο!	-29,5871	-38,1482	-2,9061	-34,8779	13,9571	-90,4596	0,9511	1,2318	-0,2596
Return on Assets (ROA)	-0,1258	-0,1140	-0,0800	-0,2485	-0,0808	-0,0066	-0,0944	0,4959	0,0136	-0,0574
Return on Equity (ROE)	-0,3878	-0,4726	-0,1667	-0,5425	-0,1829	-0,0162	-0,2834	0,7943	0,0224	-0,0823
Debt to Equity	2,0822	3,1459	1,0840	1,1830	1,2629	1,4562	2,0010	0,6018	0,6472	0,4339
Debt Ratio	0,6756	0,7588	0,5201	0,5419	0,5581	0,5929	0,6668	0,3757	0,3929	0,3026
Total Liabilities to Current Assets Ratio	9,3838	12,7010	2,2728	2,7202	5,5227	3,0245	4,3422	19,7779	11,9589	1,1707
Financial Leverage Ratio	3,0822	4,1459	2,0840	2,1830	2,2629	2,4562	3,0010	1,6018	1,6472	1,4339
Debt Coverage Ratio	-0,0779	-0,0418	-0,1778	-0,0749	-0,2667	-0,1726	-0,0213	-0,0707	-0,0536	-0,2006
Financial Autonomy Ratio	0,3244	0,2412	0,4799	0,4581	0,4419	0,4071	0,3332	0,6243	0,6071	0,6974
Cash Flow to Debt Ratio	-0,1293	-0,0670	-0,2877	-0,1030	-0,3358	-0,1897	-0,0234	-0,1126	-0,0847	-0,4280
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	-0,0676	-0,4907	0,0827	0,0977	0,0235	0,1765	-0,0832	0,0066	-0,1213	0,2215
X2 (Retained Earnings/Total Assets)	-0,1258	-0,1140	-0,0800	-0,2485	-0,0808	-0,0066	-0,0944	0,4959	0,0136	-0,0574
X3 (EBITDA/Total Assets)	-0,0654	-0,0398	-0,0423	-0,0043	-0,0499	0,0236	-0,0700	0,6230	0,0245	-0,0589
X4 (Market Equity Value/Total Liabilities)	1,0207	2,1308	3,0732	5,1475	9,8032	8,2379	6,4117	4,2106	3,1438	6,9509
X5 (Sales/Total Assets)	0,0000	0,0013	0,0011	0,0015	0,0014	0,0017	0,0008	0,6551	0,0199	0,2270
ALTMAN Z-SCORE	0,1394	0,4000	1,6927	2,8452	5,6337	5,2249	3,3849	5,9397	1,8603	4,3885
X1 (Working Capital/Total Assets)	-0,0676	-0,4907	0,0827	0,0977	0,0235	0,1765	-0,0832	0,0066	-0,1213	0,2215
X2 (EBITDA/Total Assets)	-0,0654	-0,0398	-0,0423	-0,0043	-0,0499	0,0236	-0,0700	0,6230	0,0245	-0,0589
X3 (EBT/Current Liabilities)	-0,6366	-0,1180	-0,4483	-0,0973	-0,9326	0,1061	-0,4245	49,1905	0,0528	-2,0934
X4 (Sales/Total Assets)	0,0000	0,0013	0,0011	0,0015	0,0014	0,0017	0,0008	0,6551	0,0199	0,2270
SPRINGATE S-SCORE	-0,6905	-0,7051	-0,3401	0,0239	-0,7440	0,3250	-0,5803	34,6473	-0,0071	-1,2436
X1 (Net Income/Total Assets)	-0,1258	-0,1140	-0,0800	-0,2485	-0,0808	-0,0066	-0,0944	0,4959	0,0136	-0,0574
X2 (Total Liabilities/Total Assets)	0,6756	0,7588	0,5201	0,5419	0,5581	0,5929	0,6668	0,3757	0,3929	0,3026
X3 (Current Assets/Current Liabilities)	0,5158	0,1085	1,5662	1,9617	1,3037	10,0577	0,6485	1,5301	0,2131	6,9897
ZMIJEWSKI X-SCORE	0,0703	0,4881	-1,0148	-0,1291	-0,7967	-0,8991	-0,1206	-4,4342	-2,1653	-2,3304
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	5,0816	5,0440	5,1252	4,9576	4,8994	4,9337	4,9028	5,2768	5,2737	5,1654
B (Total Liabilities/Total Assets)	0,6756	0,7588	0,5201	0,5419	0,5581	0,5929	0,6668	0,3757	0,3929	0,3026
C (Working Capital/Total Assets)	-0,0676	-0,4907	0,0827	0,0977	0,0235	0,1765	-0,0832	0,0066	-0,1213	0,2215
D (Current Liabilities/Current Assets)	1,9386	9,2137	0,6385	0,5097	0,7670	0,0994	1,5419	0,6536	4,6926	0,1431
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,1258	-0,1140	-0,0800	-0,2485	-0,0808	-0,0066	-0,0944	0,4959	0,0136	-0,0574
G (Operating Cash Flows/Total Liabilities)	-0,0779	-0,0418	-0,1778	-0,0749	-0,2667	-0,1726	-0,0213	-0,0707	-0,0536	-0,2006
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	-0,0390	0,0943	0,0799	-0,3568	0,5565	0,8397	-0,8635	1,0000	-0,9438	-1,0000
OHLSON O-SCORE	1,3898	2,8995	0,4190	0,7408	0,4652	0,1810	1,9386	-2,4441	0,2741	-0,5943
OHLSON P-PROBABILITY	80,06%	94,78%	60,32%	67,72%	61,43%	54,51%	87,42%	7,99%	56,81%	35,56%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,0000	0,0013	0,0011	0,0015	0,0014	0,0017	0,0008	0,6551	0,0199	0,2270
Net Earnings/Total Assets	-0,1258	-0,1140	-0,0800	-0,2485	-0,0808	-0,0066	-0,0944	0,4959	0,0136	-0,0574
EBITDA/Total Assets	-0,0654	-0,0398	-0,0423	-0,0043	-0,0499	0,0236	-0,0700	0,6230	0,0245	-0,0589
Backlog/Total Assets	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Current Assets/Total Assets	0,0720	0,0597	0,2289	0,1992	0,1011	0,1960	0,1536	0,0190	0,0329	0,2585
Non-Current Assets/Total Assets	0,9280	0,9403	0,7711	0,8008	0,8989	0,8040	0,8464	0,9810	0,9671	0,7415
Fixed Assets/Total Assets	0,0575	0,0624	0,0509	0,0743	0,0841	0,0783	0,0819	0,0312	0,0296	0,0367
Current Liabilities/Total Liabilities	0,2066	0,7254	0,2809	0,1874	0,1389	0,0329	0,3551	0,0330	0,3924	0,1222
Non-Current Liabilities/Total Liabilities	0,7934	0,2746	0,7191	0,8126	0,8611	0,9671	0,6449	0,9670	0,6076	0,8778
Short-term Bank Debt/Total Bank Debt	0,1651	0,9569	0,1748	0,0224	0,0224	0,0168	0,3597	0,0177	0,5723	0,1478
Long-term Bank Debt/Total Bank Debt	0,8349	0,0431	0,8252	0,9776	0,9776	0,9832	0,6403	0,9823	0,4277	0,8522
Total Bank Debt/Total Assets	0,4070	0,4741	0,3215	0,3940	0,4432	0,5393	0,6069	0,2359	0,2486	0,1418

Table C-4: Financial Indicator – Variable Calculation of Ο ΚΕΚΡΟΥ Α.Ε.

EKTEP A.E.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	29.841.849,39 €	26.592.137,78 €	24.335.340,28 €	28.951.511,42 €	24.054.313,28 €	24.791.558,32 €	24.489.655,77 €	35.936.303,21 €	51.137.889,83 €	91.297.041,09 €
Non-Current Assets	11.171.571,71 €	11.291.008,36 €	11.739.165,85 €	11.143.000,50 €	11.723.253,11 €	12.288.541,06 €	11.555.502,46 €	11.354.407,97 €	12.197.845,93 €	41.454.493,70 €
Fixed Assets	284.387,51 €	396.812,93 €	360.245,42 €	354.076,23 €	355.555,25 €	973.133,84 €	1.201.473,40 €	1.377.723,97 €	1.084.290,20 €	32.788.681,80 €
Other Non-Current Assets	10.887.184,20 €	10.894.195,43 €	11.378.920,43 €	10.788.924,27 €	11.367.697,86 €	11.315.407,22 €	10.354.029,06 €	9.976.684,00 €	11.113.555,73 €	8.665.811,90 €
Current Assets	18.670.277,68 €	15.301.129,42 €	12.596.174,43 €	17.808.510,92 €	12.331.060,17 €	12.503.017,26 €	12.934.153,31 €	24.581.895,24 €	38.940.043,90 €	49.842.547,39 €
Inventory	5.246.452,54 €	3.700.957,03 €	1.813.679,62 €	2.908.281,04 €	1.424.721,42 €	627.720,45 €	914.842,80 €	0,00 €	0,00 €	0,00 €
Accounts Receivables	3.453.114,74 €	3.637.563,07 €	5.889.634,42 €	8.065.310,81 €	10.405.220,80 €	10.139.961,99 €	9.857.922,63 €	15.933.608,71 €	23.774.908,71 €	39.667.932,18 €
Cash and Cash Equivalents	9.970.710,40 €	7.962.609,32 €	4.892.860,39 €	6.834.919,07 €	501.117,95 €	1.735.334,82 €	2.161.387,88 €	8.648.286,53 €	15.165.135,19 €	10.174.615,21 €
TOTAL EQUITY	21.774.654,04 €	21.329.216,95 €	19.534.788,03 €	20.066.461,18 €	18.006.974,26 €	17.653.012,70 €	18.503.068,54 €	18.661.775,92 €	26.780.301,36 €	44.079.868,54 €
Stakeholders' Equity	5.850.000,00 €	5.850.000,00 €	5.850.000,00 €	5.850.000,00 €	5.850.000,00 €	5.850.000,00 €	5.850.000,00 €	14.169.659,27 €	14.210.843,73 €	19.465.262,13 €
Reserves	15.924.654,04 €	15.479.216,95 €	13.684.788,03 €	14.216.461,18 €	12.156.974,26 €	11.803.012,70 €	12.653.068,54 €	5.301.858,68 €	4.401.949,21 €	4.854.559,91 €
Accumulated Retained Earnings								-809.742,03 €	8.167.508,42 €	19.760.046,50 €
TOTAL LIABILITIES	8.067.195,35 €	5.262.920,83 €	4.800.552,25 €	8.885.050,24 €	6.047.339,02 €	7.138.545,62 €	5.986.587,23 €	17.274.527,29 €	24.357.588,47 €	47.217.172,55 €
Non-Current Liabilities (w/o Bank Debt)	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	478.291,00 €	315.155,55 €	3.744.395,23 €
Long-term Provisions	281.237,93 €	361.007,67 €	328.529,22 €	278.236,91 €	301.976,75 €	713.156,00 €	809.885,56 €	18.664,11 €	24.086,84 €	40.425,15 €
Long-term Bank Debt (1 to 5 years)	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	2.706.156,00 €	1.838.506,96 €	4.555.555,58 €	1.111.111,12 €	12.466.666,62 €
Total Non-Current Liabilities	281.237,93 €	361.007,67 €	328.529,22 €	278.236,91 €	301.976,75 €	3.419.351,91 €	2.648.392,52 €	5.052.510,69 €	1.450.353,51 €	16.251.487,00 €
Current Liabilities (w/o Bank Debt)	7.785.957,42 €	4.901.913,16 €	4.472.023,03 €	8.606.813,33 €	3.245.362,27 €	3.219.193,71 €	2.338.194,71 €	11.277.572,18 €	21.831.062,76 €	28.755.208,34 €
Short-term Bank Debt (up to 1 year)	0,00 €	0,00 €	0,00 €	0,00 €	2.500.000,00 €	500.000,00 €	1.000.000,00 €	944.444,60 €	1.076.172,20 €	2.210.477,21 €
Total Current Liabilities	7.785.957,42 €	4.901.913,16 €	4.472.023,03 €	8.606.813,33 €	5.745.362,27 €	3.719.193,71 €	3.338.194,71 €	12.222.016,60 €	22.907.234,96 €	30.965.685,55 €
TOTAL EQUITY AND LIABILITIES	29.841.849,39 €	26.592.137,78 €	24.335.340,28 €	28.951.511,42 €	24.054.313,28 €	24.791.558,32 €	24.489.655,77 €	35.936.303,21 €	51.137.889,83 €	91.297.041,09 €
Total Bank Debt	0,00 €	0,00 €	0,00 €	0,00 €	2.500.000,00 €	3.206.156,00 €	2.838.506,96 €	5.500.000,00 €	2.187.283,32 €	14.677.143,83 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	14.895.518,44 €	17.537.067,13 €	8.426.953,59 €	22.756.890,20 €	20.114.152,59 €	15.455.136,89 €	20.982.144,39 €	23.157.822,46 €	79.069.677,62 €	86.236.205,20 €
Production Cost	-12.863.222,45 €	-15.146.993,89 €	-7.904.560,79 €	-19.676.518,72 €	-21.365.844,99 €	-14.418.115,24 €	-18.282.117,21 €	-20.234.554,58 €	-66.614.579,57 €	-70.571.155,32 €
Gross Income	2.032.295,99 €	2.390.073,24 €	522.392,80 €	3.080.371,48 €	-1.251.692,40 €	1.037.021,65 €	2.700.027,18 €	2.923.267,88 €	12.455.098,05 €	15.665.049,88 €
Other Income	159.227,83 €	36.075,21 €	70.827,06 €	51.311,92 €	112.458,70 €	330.114,73 €	416.830,98 €	541.133,67 €	2.690.082,07 €	1.849.361,24 €
Operational Cost	-1.382.266,67 €	-1.372.705,98 €	-1.434.596,99 €	-1.425.957,52 €	-1.486.062,56 €	-913.276,49 €	-1.392.963,16 €	-1.730.803,66 €	-2.183.086,05 €	-2.706.271,49 €
Other Costs	-113.064,68 €	-414.224,26 €	-568.765,14 €	-31.953,26 €	-31.237,02 €	-146.481,80 €	-169.846,51 €	-426.818,65 €	-871.718,44 €	-802.746,58 €
Operation Results	696.192,47 €	639.218,21 €	-1.410.142,27 €	1.673.772,62 €	-2.656.533,28 €	307.378,09 €	1.554.048,49 €	1.306.778,94 €	12.090.375,63 €	14.005.393,05 €
Financial Results	-342.392,11 €	-250.641,14 €	-258.995,19 €	-207.112,41 €	394.473,93 €	-742.884,67 €	40.540,65 €	-404.489,08 €	-409.136,31 €	-1.217.479,97 €
Earnings before Tax	353.800,36 €	388.577,07 €	-1.669.137,46 €	1.466.660,21 €	-2.262.059,35 €	-435.505,58 €	1.594.589,14 €	902.289,86 €	11.681.239,32 €	12.787.913,08 €
Tax	50.651,44 €	-284.014,16 €	325.145,91 €	-934.976,81 €	651.246,58 €	51.590,87 €	-669.598,39 €	-333.518,27 €	-2.703.988,87 €	-2.474.078,54 €
Net Income	404.451,80 €	104.562,91 €	-1.343.991,55 €	531.683,40 €	-1.610.812,77 €	-383.915,71 €	924.990,75 €	568.771,59 €	8.977.250,45 €	10.313.834,54 €
Actuarial Gains / Losses	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	2.422,32 €	90,53 €	3.427,53 €
Total Net Income	404.451,80 €	104.562,91 €	-1.343.991,55 €	531.683,40 €	-1.610.812,77 €	-383.915,71 €	924.990,75 €	571.193,91 €	8.977.340,98 €	10.317.262,07 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	247.595,41 €	-1.014.975,05 €	-2.258.684,99 €	2.269.622,93 €	-8.068.555,06 €	391.850,17 €	664.786,49 €	5.169.359,51 €	12.686.478,45 €	-22.318,13 €
Investment Cash Flows	30.190,90 €	-444.273,72 €	-369.757,28 €	-321.902,95 €	-273.460,56 €	-22.590,77 €	-111.582,26 €	-384.213,11 €	-1.044.785,63 €	-76.069,50 €
Financing Cash Flows	-3.948.617,36 €	-548.852,31 €	-441.306,66 €	-5.661,30 €	2.009.011,48 €	865.281,97 €	-126.810,69 €	1.701.752,25 €	-5.124.844,17 €	-5.634.593,03 €
Net increase / decrease in cash and cash equivalents	-3.670.831,05 €	-2.008.101,08 €	-3.069.748,93 €	1.942.058,68 €	-6.333.004,14 €	1.234.541,37 €	426.393,54 €	6.486.898,65 €	6.516.848,65 €	-5.732.980,66 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Opening cash and cash equivalents	13.641.541,45 €	9.970.710,40 €	7.962.609,32 €	4.892.860,39 €	6.834.919,07 €	501.117,95 €	1.735.334,82 €	2.161.387,88 €	8.648.286,53 €	15.165.135,19 €
Closing cash and cash equivalents	9.970.710,40 €	7.962.609,32 €	4.892.860,39 €	6.834.919,07 €	501.117,95 €	1.735.334,82 €	2.161.387,88 €	8.648.286,53 €	15.165.135,18 €	9.432.154,53 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	740.098,68 €	679.557,06 €	-1.362.487,09 €	1.722.735,81 €	-2.562.362,66 €	400.791,61 €	1.697.126,94 €	1.544.630,76 €	12.032.753,18 €	14.117.534,35 €
Backlog	18.488.798,39 €	5.552.590,23 €	14.054.216,08 €	14.198.264,40 €	10.458.584,31 €	20.011.130,89 €	26.001.818,33 €	79.342.398,00 €	102.601.714,22 €	99.186.097,53 €
Working Capital	10.884.320,26 €	10.399.216,26 €	8.124.151,40 €	9.201.697,59 €	6.585.697,90 €	8.783.823,55 €	9.595.958,60 €	12.359.878,64 €	16.032.808,94 €	18.876.861,84 €
Market Equity Value	5.180.000,00 €	5.400.000,00 €	7.990.000,00 €	11.930.000,00 €	12.710.000,00 €	9.560.000,00 €	13.390.000,00 €	17.890.000,00 €	45.900.000,00 €	44.550.000,00 €

Table C-5: Financial Statement Information of EKTEP A.E.

EKTEP A.E.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	2,3979	3,1215	2,8167	2,0691	2,1463	3,3618	3,8746	2,0113	1,6999	1,6096
Quick Ratio	1,7241	2,3665	2,4111	1,7312	1,8983	3,1930	3,6005	2,0113	1,6999	1,6096
Cash Ratio	1,2806	1,6244	1,0941	0,7941	0,0872	0,4666	0,6475	0,7076	0,6620	0,3286
Inventory Turnover Ratio	2,4518	4,0927	4,3583	6,7657	14,9965	22,9690	19,9839	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!
Average Selling Period	148,8706	89,1827	83,7482	53,9487	24,3390	15,8910	18,2647	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!
Working Capital Turnover Ratio	1,3685	1,6864	1,0373	2,4731	3,0542	1,7595	2,1866	1,8736	4,9317	4,5684
Asset Turnover Ratio	0,4991	0,6595	0,3463	0,7860	0,8362	0,6234	0,8568	0,6444	1,5462	0,9446
Fixed Asset Turnover Ratio	52,3775	44,1948	23,3923	64,2712	56,5711	15,8818	17,4637	16,8088	72,9230	2,6301
Equity Turnover Ratio	0,6841	0,8222	0,4314	1,1341	1,1170	0,8755	1,1340	1,2409	2,9525	1,9564
Gross Profit Margin	0,1364	0,1363	0,0620	0,1354	-0,0622	0,0671	0,1287	0,1262	0,1575	0,1817
Net Profit Margin	0,0272	0,0060	-0,1595	0,0234	-0,0801	-0,0248	0,0441	0,0247	0,1135	0,1196
EBITDA Margin	0,0497	0,0387	-0,1617	0,0757	-0,1274	0,0259	0,0809	0,0667	0,1522	0,1637
Return on Assets (ROA)	0,0136	0,0039	-0,0552	0,0184	-0,0670	-0,0155	0,0378	0,0159	0,1756	0,1130
Return on Equity (ROE)	0,0186	0,0049	-0,0688	0,0265	-0,0895	-0,0217	0,0500	0,0306	0,3352	0,2341
Debt to Equity	0,3705	0,2467	0,2457	0,4428	0,3358	0,4044	0,3235	0,9257	0,9095	1,0712
Debt Ratio	0,2703	0,1979	0,1973	0,3069	0,2514	0,2879	0,2445	0,4807	0,4763	0,5172
Total Liabilities to Current Assets Ratio	0,4321	0,3440	0,3811	0,4989	0,4904	0,5709	0,4629	0,7027	0,6255	0,9473
Financial Leverage Ratio	1,3705	1,2467	1,2457	1,4428	1,3358	1,4044	1,3235	1,9257	1,9095	2,0712
Debt Coverage Ratio	0,0307	-0,1929	-0,4705	0,2554	-1,3342	0,0549	0,1110	0,2992	0,5208	-0,0005
Financial Autonomy Ratio	0,7297	0,8021	0,8027	0,6931	0,7486	0,7121	0,7555	0,5193	0,5237	0,4828
Cash Flow to Debt Ratio	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	-3,2274	0,1222	0,2342	0,9399	5,8001	-0,0015
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	0,3647	0,3911	0,3338	0,3178	0,2738	0,3543	0,3918	0,3439	0,3135	0,2068
X2 (Retained Earnings/Total Assets)	0,0136	0,0039	-0,0552	0,0184	-0,0670	-0,0155	0,0378	0,0159	0,1756	0,1130
X3 (EBITDA/Total Assets)	0,0248	0,0256	-0,0560	0,0595	-0,1065	0,0162	0,0693	0,0430	0,2353	0,1546
X4 (Market Equity Value/Total Liabilities)	0,6421	1,0260	1,6644	1,3427	2,1018	1,3392	2,2367	1,0356	1,8844	0,9435
X5 (Sales/Total Assets)	0,4991	0,6595	0,3463	0,7860	0,8362	0,6234	0,8568	0,6444	1,5462	0,9446
ALTMAN Z-SCORE	1,4229	1,8342	1,4835	2,1951	1,9805	1,8838	2,9505	1,8426	4,0753	2,4273
X1 (Working Capital/Total Assets)	0,3647	0,3911	0,3338	0,3178	0,2738	0,3543	0,3918	0,3439	0,3135	0,2068
X2 (EBITDA/Total Assets)	0,0248	0,0256	-0,0560	0,0595	-0,1065	0,0162	0,0693	0,0430	0,2353	0,1546
X3 (EBT/Current Liabilities)	0,0454	0,0793	-0,3732	0,1704	-0,3937	-0,1171	0,4777	0,0738	0,5099	0,4130
X4 (Sales/Total Assets)	0,4991	0,6595	0,3463	0,7860	0,8362	0,6234	0,8568	0,6444	1,5462	0,9446
SPRINGATE S-SCORE	0,6815	0,7974	0,0641	0,9369	0,0296	0,5866	1,2743	0,7927	2,0003	1,3381
X1 (Net Income/Total Assets)	0,0136	0,0039	-0,0552	0,0184	-0,0670	-0,0155	0,0378	0,0159	0,1756	0,1130
X2 (Total Liabilities/Total Assets)	0,2703	0,1979	0,1973	0,3069	0,2514	0,2879	0,2445	0,4807	0,4763	0,5172
X3 (Current Assets/Current Liabilities)	2,3979	3,1215	2,8167	2,0691	2,1463	3,3618	3,8746	2,0113	1,6999	1,6096
ZMIJEWSKI X-SCORE	-2,8524	-3,2173	-2,9552	-2,6678	-2,5975	-2,6174	-3,1027	-1,6698	-2,4165	-1,9025
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	5,4748	5,4265	5,3849	5,4608	5,3795	5,3978	5,3829	5,5094	5,6376	5,8755
B (Total Liabilities/Total Assets)	0,2703	0,1979	0,1973	0,3069	0,2514	0,2879	0,2445	0,4807	0,4763	0,5172
C (Working Capital/Total Assets)	0,3647	0,3911	0,3338	0,3178	0,2738	0,3543	0,3918	0,3439	0,3135	0,2068
D (Current Liabilities/Current Assets)	0,4170	0,3204	0,3550	0,4833	0,4659	0,2975	0,2581	0,4972	0,5883	0,6213
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	0,0136	0,0039	-0,0552	0,0184	-0,0670	-0,0155	0,0378	0,0159	0,1756	0,1130
G (Operating Cash Flows/Total Liabilities)	0,0307	-0,1929	-0,4705	0,2554	-1,3342	0,0549	0,1110	0,2992	0,5208	-0,0005
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	1,0000	-0,5892	-1,0000	1,0000	-1,0000	0,6151	1,0000	-0,2365	0,8804	0,0694
OHLSON O-SCORE	-3,0174	-2,2196	-0,9748	-3,1419	0,7716	-2,3640	-3,1063	-1,2950	-2,6890	-0,8595
OHLSON P-PROBABILITY	4,66%	9,80%	27,39%	4,14%	68,39%	8,60%	4,28%	21,50%	6,36%	29,74%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,4991	0,6595	0,3463	0,7860	0,8362	0,6234	0,8568	0,6444	1,5462	0,9446
Net Earnings/Total Assets	0,0136	0,0039	-0,0552	0,0184	-0,0670	-0,0155	0,0378	0,0159	0,1756	0,1130
EBITDA/Total Assets	0,0248	0,0256	-0,0560	0,0595	-0,1065	0,0162	0,0693	0,0430	0,2353	0,1546
Backlog/Total Assets	0,6196	0,2088	0,5775	0,4904	0,4348	0,8072	1,0617	2,2079	2,0064	1,0864
Current Assets/Total Assets	0,6256	0,5754	0,5176	0,6151	0,5126	0,5043	0,5281	0,6840	0,7615	0,5459
Non-Current Assets/Total Assets	0,3744	0,4246	0,4824	0,3849	0,4874	0,4957	0,4719	0,3160	0,2385	0,4541
Fixed Assets/Total Assets	0,0095	0,0149	0,0148	0,0122	0,0148	0,0393	0,0491	0,0383	0,0212	0,3591
Current Liabilities/Total Liabilities	0,9651	0,9314	0,9316	0,9687	0,9501	0,5210	0,5576	0,7075	0,9405	0,6558
Non-Current Liabilities/Total Liabilities	0,0349	0,0686	0,0684	0,0313	0,0499	0,4790	0,4424	0,2925	0,0595	0,3442
Short-term Bank Debt/Total Bank Debt	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	1,0000	0,1559	0,3523	0,1717	0,4920	0,1506
Long-term Bank Debt/Total Bank Debt	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	#ΔIAIP/0!	0,0000	0,8441	0,6477	0,8283	0,5080	0,8494
Total Bank Debt/Total Assets	0,0000	0,0000	0,0000	0,0000	0,1039	0,1293	0,1159	0,1530	0,0428	0,1608

Table C-6: Financial Indicator – Variable Calculation of EKTEP A.E.

ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	27.879.382,00 €	23.818.951,00 €	21.497.237,00 €	20.922.239,00 €	20.922.621,00 €	22.390.554,00 €	23.025.594,00 €	25.339.717,00 €	30.797.175,00 €	28.458.576,00 €
Non-Current Assets	18.074.703,00 €	17.499.955,00 €	16.598.044,00 €	14.947.774,00 €	14.773.327,00 €	14.564.194,00 €	15.510.694,00 €	14.713.136,00 €	16.724.510,00 €	16.877.698,00 €
Fixed Assets	18.109.267,00 €	17.960.497,00 €	18.141.516,00 €	17.012.615,00 €	16.087.270,00 €	14.783.661,00 €	15.889.373,00 €	15.883.069,00 €	15.592.707,00 €	15.772.234,00 €
Other Non-Current Assets	-34.564,00 €	-460.542,00 €	-1.543.472,00 €	-2.064.841,00 €	-1.313.943,00 €	-219.467,00 €	-378.679,00 €	-1.169.933,00 €	1.131.803,00 €	1.105.464,00 €
Current Assets	9.804.679,00 €	6.318.996,00 €	4.899.193,00 €	5.974.465,00 €	6.149.294,00 €	7.826.360,00 €	7.514.900,00 €	10.626.581,00 €	14.072.665,00 €	11.580.878,00 €
Inventory	32.545,00 €	15.728,00 €	67.053,00 €	144.051,00 €	245.146,00 €	160.296,00 €	152.416,00 €	212.594,00 €	86.454,00 €	87.241,00 €
Accounts Receivables	6.768.827,00 €	5.927.415,00 €	4.379.346,00 €	4.812.945,00 €	5.019.733,00 €	6.187.020,00 €	6.702.140,00 €	9.660.207,00 €	11.924.992,00 €	10.502.947,00 €
Cash and Cash Equivalents	3.003.307,00 €	375.853,00 €	452.794,00 €	1.017.469,00 €	884.415,00 €	1.479.044,00 €	660.344,00 €	753.780,00 €	2.061.219,00 €	990.690,00 €
TOTAL EQUITY	9.833.110,00 €	9.473.257,00 €	7.953.675,00 €	7.759.492,00 €	8.183.034,00 €	9.026.362,00 €	10.155.495,00 €	11.123.609,00 €	13.010.618,00 €	13.258.334,00 €
Stakeholders' Equity	14.107.627,00 €	14.082.233,00 €	14.024.556,00 €	13.818.489,00 €	13.812.927,00 €	13.542.586,00 €	13.504.920,00 €	13.503.576,00 €	13.502.603,00 €	13.503.095,00 €
Reserves	1.308.964,00 €	1.308.964,00 €	1.408.727,00 €	1.408.727,00 €	1.408.727,00 €	1.408.727,00 €	1.421.157,00 €	1.476.860,00 €	1.476.860,00 €	1.476.860,00 €
Accumulated Retained Earnings	-5.583.481,00 €	-5.917.940,00 €	-7.479.608,00 €	-7.467.724,00 €	-7.038.620,00 €	-5.924.951,00 €	-4.770.582,00 €	-3.856.827,00 €	-1.968.845,00 €	-1.721.621,00 €
TOTAL LIABILITIES	18.046.272,00 €	14.345.695,00 €	13.543.563,00 €	13.162.746,00 €	12.739.586,00 €	13.364.192,00 €	12.870.100,00 €	14.216.108,00 €	17.786.558,00 €	15.200.244,00 €
Non-Current Liabilities (w/o Bank Debt)	2.094.356,00 €	1.219.592,00 €	902.400,00 €	1.021.505,00 €	1.110.111,00 €	1.263.713,00 €	1.503.000,00 €	1.634.983,00 €	1.929.104,00 €	2.135.975,00 €
Long-term Provisions	2.186.487,00 €	1.973.131,00 €	1.932.795,00 €	1.538.700,00 €	1.280.936,00 €	1.208.592,00 €	1.082.816,00 €	1.468.653,00 €	1.440.032,00 €	503.699,00 €
Long-term Bank Debt (1 to 5 years)	1.823.931,00 €	342.812,00 €	2.575.200,00 €	2.257.345,00 €	2.366.957,00 €	1.644.201,00 €	5.206.924,00 €	4.810.150,00 €	4.413.377,00 €	3.883.479,00 €
Total Non-Current Liabilities	6.104.774,00 €	3.535.535,00 €	5.410.395,00 €	4.817.550,00 €	4.758.004,00 €	4.116.506,00 €	7.792.740,00 €	7.913.786,00 €	7.282.513,00 €	6.523.153,00 €
Current Liabilities (w/o Bank Debt)	7.611.291,00 €	4.804.075,00 €	4.020.071,00 €	3.578.851,00 €	3.589.802,00 €	4.497.258,00 €	4.434.109,00 €	5.075.283,00 €	7.240.845,00 €	5.736.513,00 €
Short-term Bank Debt (up to 1 year)	4.330.207,00 €	6.006.085,00 €	4.113.097,00 €	4.766.345,00 €	4.391.780,00 €	4.750.428,00 €	643.251,00 €	1.227.039,00 €	2.940.200,00 €	2.940.578,00 €
Total Current Liabilities	11.941.498,00 €	10.810.160,00 €	8.133.168,00 €	8.345.196,00 €	7.981.582,00 €	9.247.686,00 €	5.077.360,00 €	6.302.322,00 €	10.004.045,00 €	8.677.091,00 €
TOTAL EQUITY AND LIABILITIES	27.879.382,00 €	23.818.952,00 €	21.497.238,00 €	20.922.238,00 €	20.922.620,00 €	22.390.554,00 €	23.025.595,00 €	25.339.717,00 €	30.797.176,00 €	28.458.578,00 €
Total Bank Debt	6.154.138,00 €	6.348.897,00 €	6.688.297,00 €	7.023.690,00 €	6.758.737,00 €	6.394.629,00 €	5.850.175,00 €	6.037.189,00 €	7.176.577,00 €	6.824.057,00 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	4.590.559,00 €	9.685.690,00 €	6.504.878,00 €	6.010.931,00 €	7.255.349,00 €	10.282.830,00 €	11.013.044,00 €	12.282.387,00 €	20.792.615,00 €	15.682.369,00 €
Production Cost	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Gross Income	4.590.559,00 €	9.685.690,00 €	6.504.878,00 €	6.010.931,00 €	7.255.349,00 €	10.282.830,00 €	11.013.044,00 €	12.282.387,00 €	20.792.615,00 €	15.682.369,00 €
Other Income	11.847,00 €	789.876,00 €	1.045.268,00 €	208.299,00 €	530.822,00 €	896.247,00 €	362.435,00 €	486.299,00 €	459.220,00 €	349.093,00 €
Operational Cost	-2.403.278,00 €	-5.208.583,00 €	-3.125.311,00 €	-3.330.948,00 €	-3.402.373,00 €	-4.123.062,00 €	-4.924.269,00 €	-5.635.316,00 €	-8.464.753,00 €	-6.412.049,00 €
Other Costs	-1.914.570,00 €	-4.947.535,00 €	-4.730.276,00 €	-2.500.586,00 €	-3.530.733,00 €	-5.144.694,00 €	-5.048.104,00 €	-5.425.942,00 €	-10.784.042,00 €	-8.486.953,00 €
Operation Results	284.558,00 €	319.448,00 €	-305.441,00 €	387.696,00 €	853.065,00 €	1.911.321,00 €	1.403.106,00 €	1.707.428,00 €	2.003.040,00 €	1.132.460,00 €
Financial Results	-402.018,00 €	-681.302,00 €	-1.626.280,00 €	-360.188,00 €	-333.128,00 €	-370.429,00 €	202.936,00 €	-216.148,00 €	767.485,00 €	-915.186,00 €
Earnings before Tax	-117.460,00 €	-361.854,00 €	-1.931.721,00 €	27.508,00 €	519.937,00 €	1.540.892,00 €	1.606.042,00 €	1.491.280,00 €	2.770.525,00 €	217.274,00 €
Tax	-44.955,00 €	107.130,00 €	312.376,00 €	-40.474,00 €	-96.395,00 €	-316.680,00 €	-426.517,00 €	-527.114,00 €	-884.706,00 €	-116.823,00 €
Net Income	-162.415,00 €	-254.724,00 €	-1.619.345,00 €	-12.966,00 €	423.542,00 €	1.224.212,00 €	1.179.525,00 €	964.166,00 €	1.885.819,00 €	100.451,00 €
Actuarial Gains / Losses	0,00 €	-105.130,00 €	99.763,00 €	18.783,00 €	0,00 €	-212.262,00 €	-12.494,00 €	1.449,00 €	1.190,00 €	-7.043,00 €
Total Net Income	-162.415,00 €	-359.854,00 €	-1.519.582,00 €	5.817,00 €	423.542,00 €	1.011.950,00 €	1.167.031,00 €	965.615,00 €	1.887.009,00 €	93.408,00 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-563.526,00 €	-2.992.837,00 €	-88.649,00 €	-605.835,00 €	-135.479,00 €	873.821,00 €	-200.196,00 €	-82.657,00 €	209.961,00 €	-446.172,00 €
Investment Cash Flows	-22.040,00 €	170.623,00 €	-173.808,00 €	719.916,00 €	267.377,00 €	42.116,00 €	-219.051,00 €	-10.921,00 €	-41.910,00 €	-493.388,00 €
Financing Cash Flows	337.034,00 €	194.760,00 €	339.399,00 €	450.593,00 €	-264.952,00 €	-321.308,00 €	-483.109,00 €	187.015,00 €	1.139.387,00 €	-130.968,00 €
Net increase / decrease in cash and cash equivalents	-248.532,00 €	-2.627.454,00 €	76.942,00 €	564.674,00 €	-133.054,00 €	594.629,00 €	-902.356,00 €	93.437,00 €	1.307.438,00 €	-1.070.528,00 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Opening cash and cash equivalents	498.263,00 €	3.003.307,00 €	375.853,00 €	452.794,00 €	1.017.469,00 €	884.415,00 €	1.479.044,00 €	660.344,00 €	753.780,00 €	2.061.219,00 €
Closing cash and cash equivalents	249.731,00 €	375.853,00 €	452.795,00 €	1.017.468,00 €	884.415,00 €	1.479.044,00 €	660.344,00 €	753.781,00 €	2.061.218,00 €	990.691,00 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	511.000,00 €	848.000,00 €	-91.000,00 €	794.000,00 €	1.059.000,00 €	1.918.000,00 €	1.737.000,00 €	2.016.000,00 €	2.781.000,00 €	1.579.000,00 €
Backlog	23.130.000,00 €	20.500.000,00 €	10.660.000,00 €	13.100.000,00 €	11.429.000,00 €	10.707.000,00 €	10.729.000,00 €	34.477.000,00 €	37.363.000,00 €	37.720.000,00 €
Working Capital	-2.136.819,00 €	-4.491.164,00 €	-3.233.975,00 €	-2.370.731,00 €	-1.832.288,00 €	-1.421.326,00 €	2.437.540,00 €	4.324.259,00 €	4.068.620,00 €	2.903.787,00 €
Market Equity Value	4.600.000,00 €	3.810.000,00 €	4.120.000,00 €	3.330.000,00 €	2.220.000,00 €	4.440.000,00 €	10.480.000,00 €	13.330.000,00 €	47.630.000,00 €	44.460.000,00 €

Table C-7: Financial Statement Information of ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.

ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	0,8211	0,5845	0,6024	0,7159	0,7704	0,8463	1,4801	1,6861	1,4067	1,3346
Quick Ratio	0,8183	0,5831	0,5941	0,6987	0,7397	0,8290	1,4501	1,6524	1,3981	1,3246
Cash Ratio	0,2515	0,0348	0,0557	0,1219	0,1108	0,1599	0,1301	0,1196	0,2060	0,1142
Inventory Turnover Ratio	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Average Selling Period	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!
Working Capital Turnover Ratio	-2,1483	-2,1566	-2,0114	-2,5355	-3,9597	-7,2347	4,5181	2,8403	5,1105	5,4007
Asset Turnover Ratio	0,1647	0,4066	0,3026	0,2873	0,3468	0,4592	0,4783	0,4847	0,6751	0,5511
Fixed Asset Turnover Ratio	0,2535	0,5393	0,3586	0,3533	0,4510	0,6956	0,6931	0,7733	1,3335	0,9943
Equity Turnover Ratio	0,4668	1,0224	0,8178	0,7747	0,8866	1,1392	1,0844	1,1042	1,5981	1,1828
Gross Profit Margin	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
Net Profit Margin	-0,0354	-0,0372	-0,2336	0,0010	0,0584	0,0984	0,1060	0,0786	0,0908	0,0060
EBITDA Margin	0,1113	0,0876	-0,0140	0,1321	0,1460	0,1865	0,1577	0,1641	0,1337	0,1007
Return on Assets (ROA)	-0,0058	-0,0151	-0,0707	0,0003	0,0202	0,0452	0,0507	0,0381	0,0613	0,0033
Return on Equity (ROE)	-0,0165	-0,0380	-0,1911	0,0007	0,0518	0,1121	0,1149	0,0868	0,1450	0,0070
Debt to Equity	1,8353	1,5143	1,7028	1,6963	1,5568	1,4806	1,2673	1,2780	1,3671	1,1465
Debt Ratio	0,6473	0,6023	0,6300	0,6291	0,6089	0,5969	0,5589	0,5610	0,5775	0,5341
Total Liabilities to Current Assets Ratio	1,8406	2,2702	2,7644	2,2032	2,0717	1,7076	1,7126	1,3378	1,2639	1,3125
Financial Leverage Ratio	2,8353	2,5143	2,7028	2,6963	2,5568	2,4806	2,2673	2,2780	2,3671	2,1465
Debt Coverage Ratio	-0,0312	-0,2086	-0,0065	-0,0460	-0,0106	0,0654	-0,0156	-0,0058	0,0118	-0,0294
Financial Autonomy Ratio	0,3527	0,3977	0,3700	0,3709	0,3911	0,4031	0,4411	0,4390	0,4225	0,4659
Cash Flow to Debt Ratio	-0,0916	-0,4714	-0,0133	-0,0863	-0,0200	0,1366	-0,0342	-0,0137	0,0293	-0,0654
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	-0,0766	-0,1886	-0,1504	-0,1133	-0,0876	-0,0635	0,1059	0,1707	0,1321	0,1020
X2 (Retained Earnings/Total Assets)	-0,0058	-0,0151	-0,0707	0,0003	0,0202	0,0452	0,0507	0,0381	0,0613	0,0033
X3 (EBITDA/Total Assets)	0,0183	0,0356	-0,0042	0,0380	0,0506	0,0857	0,0754	0,0796	0,0903	0,0555
X4 (Market Equity Value/Total Liabilities)	0,2549	0,2656	0,3042	0,2530	0,1743	0,3322	0,8143	0,9377	2,6779	2,9250
X5 (Sales/Total Assets)	0,1647	0,4066	0,3026	0,2873	0,3468	0,4592	0,4783	0,4847	0,6751	0,5511
ALTMAN Z-SCORE	0,2780	0,4361	0,1917	0,4287	0,5416	0,9284	1,4138	1,5680	2,8242	2,6162
X1 (Working Capital/Total Assets)	-0,0766	-0,1886	-0,1504	-0,1133	-0,0876	-0,0635	0,1059	0,1707	0,1321	0,1020
X2 (EBITDA/Total Assets)	0,0183	0,0356	-0,0042	0,0380	0,0506	0,0857	0,0754	0,0796	0,0903	0,0555
X3 (EBT/Current Liabilities)	-0,0098	-0,0335	-0,2375	0,0033	0,0651	0,1666	0,3163	0,2366	0,2769	0,0250
X4 (Sales/Total Assets)	0,1647	0,4066	0,3026	0,2873	0,3468	0,4592	0,4783	0,4847	0,6751	0,5511
SPRINGATE S-SCORE	0,0367	0,0556	-0,2037	0,1169	0,2469	0,4913	0,7407	0,7701	0,8661	0,5124
X1 (Net Income/Total Assets)	-0,0058	-0,0151	-0,0707	0,0003	0,0202	0,0452	0,0507	0,0381	0,0613	0,0033
X2 (Total Liabilities/Total Assets)	0,6473	0,6023	0,6300	0,6291	0,6089	0,5969	0,5589	0,5610	0,5775	0,5341
X3 (Current Assets/Current Liabilities)	0,8211	0,5845	0,6024	0,7159	0,7704	0,8463	1,4801	1,6861	1,4067	1,3346
ZMIJEWSKI X-SCORE	-0,6304	-0,8451	-0,4367	-0,7616	-0,9664	-1,1470	-1,3846	-1,3152	-1,3271	-1,3122
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	5,4453	5,3787	5,3311	5,3197	5,3189	5,3536	5,3562	5,3577	5,4174	5,3693
B (Total Liabilities/Total Assets)	0,6473	0,6023	0,6300	0,6291	0,6089	0,5969	0,5589	0,5610	0,5775	0,5341
C (Working Capital/Total Assets)	-0,0766	-0,1886	-0,1504	-0,1133	-0,0876	-0,0635	0,1059	0,1707	0,1321	0,1020
D (Current Liabilities/Current Assets)	1,2179	1,7107	1,6601	1,3968	1,2980	1,1816	0,6756	0,5931	0,7109	0,7493
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,0058	-0,0151	-0,0707	0,0003	0,0202	0,0452	0,0507	0,0381	0,0613	0,0033
G (Operating Cash Flows/Total Liabilities)	-0,0312	-0,2086	-0,0065	-0,0460	-0,0106	0,0654	-0,0156	-0,0058	0,0118	-0,0294
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,7384	-0,3780	-0,6171	1,0000	0,9729	0,4099	0,0712	-0,0944	0,3230	-0,9057
OHLSON O-SCORE	0,2550	1,1363	1,4360	0,1388	-0,1251	0,1251	-0,0735	-0,0622	-0,2275	0,4290
OHLSON P-PROBABILITY	56,34%	75,70%	80,78%	53,47%	46,88%	53,12%	48,16%	48,44%	44,34%	60,56%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,1647	0,4066	0,3026	0,2873	0,3468	0,4592	0,4783	0,4847	0,6751	0,5511
Net Earnings/Total Assets	-0,0058	-0,0151	-0,0707	0,0003	0,0202	0,0452	0,0507	0,0381	0,0613	0,0033
EBITDA/Total Assets	0,0183	0,0356	-0,0042	0,0380	0,0506	0,0857	0,0754	0,0796	0,0903	0,0555
Backlog/Total Assets	0,8296	0,8607	0,4959	0,6261	0,5463	0,4782	0,4660	1,3606	1,2132	1,3254
Current Assets/Total Assets	0,3517	0,2653	0,2279	0,2856	0,2939	0,3495	0,3264	0,4194	0,4569	0,4069
Non-Current Assets/Total Assets	0,6483	0,7347	0,7721	0,7144	0,7061	0,6505	0,6736	0,5806	0,5431	0,5931
Fixed Assets/Total Assets	0,6496	0,7540	0,8439	0,8131	0,7689	0,6603	0,6901	0,6268	0,5063	0,5542
Current Liabilities/Total Liabilities	0,6617	0,7535	0,6005	0,6340	0,6265	0,6920	0,3945	0,4433	0,5624	0,5709
Non-Current Liabilities/Total Liabilities	0,3383	0,2465	0,3995	0,3660	0,3735	0,3080	0,6055	0,5567	0,4376	0,4291
Short-term Bank Debt/Total Bank Debt	0,7036	0,9460	0,6150	0,6786	0,6498	0,7429	0,1100	0,2032	0,3850	0,4309
Long-term Bank Debt/Total Bank Debt	0,2964	0,0540	0,3850	0,3214	0,3502	0,2571	0,8900	0,7968	0,6150	0,5691
Total Bank Debt/Total Assets	0,2207	0,2665	0,3111	0,3357	0,3230	0,2856	0,2541	0,2383	0,2330	0,2398

Table C-8: Financial Indicator – Variable Calculation of ΔΟΜΙΚΗ ΚΡΗΤΗΣ Α.Ε.

BIOTEP A.E.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	99.728.000,00 €	90.898.000,00 €	89.845.000,00 €	86.753.000,00 €	88.149.000,00 €	86.239.000,00 €	84.753.000,00 €	85.087.000,00 €	81.234.000,00 €	67.261.000,00 €
Non-Current Assets	63.856.000,00 €	58.259.000,00 €	57.034.000,00 €	56.552.000,00 €	57.749.000,00 €	57.716.000,00 €	57.099.000,00 €	57.771.000,00 €	57.550.000,00 €	43.582.000,00 €
Fixed Assets	5.254.000,00 €	4.935.000,00 €	4.763.000,00 €	4.531.000,00 €	4.136.000,00 €	4.025.000,00 €	3.889.000,00 €	3.796.000,00 €	3.463.000,00 €	3.583.000,00 €
Other Non-Current Assets	58.602.000,00 €	53.324.000,00 €	52.271.000,00 €	52.021.000,00 €	53.613.000,00 €	53.691.000,00 €	53.210.000,00 €	53.975.000,00 €	54.087.000,00 €	39.999.000,00 €
Current Assets	35.872.000,00 €	32.639.000,00 €	32.811.000,00 €	30.201.000,00 €	30.400.000,00 €	28.523.000,00 €	27.654.000,00 €	27.316.000,00 €	23.684.000,00 €	23.679.000,00 €
Inventory	650.000,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	110.000,00 €	98.000,00 €
Accounts Receivables	34.917.000,00 €	32.281.000,00 €	32.544.000,00 €	29.946.000,00 €	30.131.000,00 €	28.121.000,00 €	27.003.000,00 €	26.579.000,00 €	20.095.000,00 €	22.595.000,00 €
Cash and Cash Equivalents	305.000,00 €	358.000,00 €	267.000,00 €	255.000,00 €	269.000,00 €	402.000,00 €	651.000,00 €	737.000,00 €	3.479.000,00 €	986.000,00 €
TOTAL EQUITY	-35.437.000,00 €	-53.879.000,00 €	-71.442.000,00 €	-85.018.000,00 €	-93.822.000,00 €	-88.035.000,00 €	-96.856.000,00 €	-106.520.000,00 €	-118.295.000,00 €	-139.424.000,00 €
Stakeholders' Equity	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €	74.450.000,00 €
Reserves	8.110.000,00 €	7.993.000,00 €	7.945.000,00 €	7.589.000,00 €	7.519.000,00 €	25.715.000,00 €	25.702.000,00 €	25.715.000,00 €	25.620.000,00 €	25.749.000,00 €
Accumulated Retained Earnings	-117.997.000,00 €	-136.322.000,00 €	-153.837.000,00 €	-167.057.000,00 €	-175.791.000,00 €	-188.200.000,00 €	-197.008.000,00 €	-206.685.000,00 €	-218.365.000,00 €	-239.623.000,00 €
TOTAL LIABILITIES	135.165.000,00 €	144.777.000,00 €	161.287.000,00 €	171.770.000,00 €	181.971.000,00 €	174.272.000,00 €	181.610.000,00 €	191.608.000,00 €	199.530.000,00 €	206.685.000,00 €
Non-Current Liabilities (w/o Bank Debt)	589.000,00 €	1.314.000,00 €	1.331.000,00 €	1.179.000,00 €	1.929.000,00 €	2.915.000,00 €	2.893.000,00 €	3.074.000,00 €	4.201.000,00 €	3.176.000,00 €
Long-term Provisions	1.884.000,00 €	1.851.000,00 €	1.855.000,00 €	1.871.000,00 €	1.837.000,00 €	1.839.000,00 €	1.830.000,00 €	1.830.000,00 €	1.806.000,00 €	1.809.000,00 €
Long-term Bank Debt (1 to 5 years)	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Total Non-Current Liabilities	2.473.000,00 €	3.165.000,00 €	3.186.000,00 €	3.050.000,00 €	3.766.000,00 €	4.754.000,00 €	4.723.000,00 €	4.904.000,00 €	6.007.000,00 €	4.985.000,00 €
Current Liabilities (w/o Bank Debt)	16.202.000,00 €	17.922.000,00 €	21.855.000,00 €	25.524.000,00 €	28.957.000,00 €	11.074.000,00 €	13.509.000,00 €	13.797.000,00 €	12.318.000,00 €	11.096.000,00 €
Short-term Bank Debt (up to 1 year)	116.490.000,00 €	123.690.000,00 €	136.246.000,00 €	143.196.000,00 €	149.248.000,00 €	158.444.000,00 €	163.378.000,00 €	172.907.000,00 €	181.205.000,00 €	190.604.000,00 €
Total Current Liabilities	132.692.000,00 €	141.612.000,00 €	158.101.000,00 €	168.720.000,00 €	178.205.000,00 €	169.518.000,00 €	176.887.000,00 €	186.704.000,00 €	193.523.000,00 €	201.700.000,00 €
TOTAL EQUITY AND LIABILITIES	99.728.000,00 €	90.898.000,00 €	89.845.000,00 €	86.752.000,00 €	88.149.000,00 €	86.237.000,00 €	84.754.000,00 €	85.088.000,00 €	81.235.000,00 €	67.261.000,00 €
Total Bank Debt	116.490.000,00 €	123.690.000,00 €	136.246.000,00 €	143.196.000,00 €	149.248.000,00 €	158.444.000,00 €	163.378.000,00 €	172.907.000,00 €	181.205.000,00 €	190.604.000,00 €
INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	1.227.000,00 €	551.000,00 €	180.000,00 €	177.000,00 €	250.000,00 €	228.000,00 €	246.000,00 €	252.000,00 €	499.000,00 €	1.255.000,00 €
Production Cost	-3.488.000,00 €	-5.756.000,00 €	-6.663.000,00 €	-5.169.000,00 €	-3.985.000,00 €	-1.681.000,00 €	-1.181.000,00 €	-267.000,00 €	-547.000,00 €	-297.000,00 €
Gross Income	-2.261.000,00 €	-5.205.000,00 €	-6.483.000,00 €	-4.992.000,00 €	-3.735.000,00 €	-1.453.000,00 €	-935.000,00 €	-15.000,00 €	-48.000,00 €	958.000,00 €
Other Income	1.323.000,00 €	111.000,00 €	1.746.000,00 €	172.000,00 €	1.865.000,00 €	19.064.000,00 €	1.489.000,00 €	1.498.000,00 €	628.000,00 €	648.000,00 €
Operational Cost	-1.093.000,00 €	-726.000,00 €	-721.000,00 €	-966.000,00 €	-623.000,00 €	-695.000,00 €	-505.000,00 €	-1.419.000,00 €	-2.427.000,00 €	-12.952.000,00 €
Other Costs	-180.000,00 €	-4.614.000,00 €	0,00 €	0,00 €	0,00 €	-8.000,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Operation Results	-2.211.000,00 €	-10.434.000,00 €	-5.458.000,00 €	-5.786.000,00 €	-2.493.000,00 €	16.908.000,00 €	49.000,00 €	64.000,00 €	-1.847.000,00 €	-11.346.000,00 €
Financial Results	-6.475.000,00 €	-7.182.000,00 €	-12.323.000,00 €	-7.244.000,00 €	-5.468.000,00 €	-9.974.000,00 €	-8.851.000,00 €	-9.514.000,00 €	-10.185.000,00 €	-10.802.000,00 €
Earnings before Tax	-8.686.000,00 €	-17.616.000,00 €	-17.781.000,00 €	-13.030.000,00 €	-7.961.000,00 €	6.934.000,00 €	-8.802.000,00 €	-9.450.000,00 €	-12.032.000,00 €	-22.148.000,00 €
Tax	-1.420.000,00 €	-826.000,00 €	217.000,00 €	-122.000,00 €	-1.019.000,00 €	-1.019.000,00 €	-19.000,00 €	-214.000,00 €	256.000,00 €	1.019.000,00 €
Net Income	-10.106.000,00 €	-18.442.000,00 €	-17.564.000,00 €	-13.152.000,00 €	-8.980.000,00 €	5.915.000,00 €	-8.821.000,00 €	-9.664.000,00 €	-11.776.000,00 €	-21.129.000,00 €
Actuarial Gains / Losses	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	-128.000,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Total Net Income	-10.106.000,00 €	-18.442.000,00 €	-17.564.000,00 €	-13.152.000,00 €	-8.980.000,00 €	5.787.000,00 €	-8.821.000,00 €	-9.664.000,00 €	-11.776.000,00 €	-21.129.000,00 €
CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-8.766.000,00 €	-7.164.000,00 €	-13.889.000,00 €	-7.050.000,00 €	-6.414.000,00 €	-9.101.000,00 €	-6.376.000,00 €	-9.458.000,00 €	-5.793.000,00 €	-11.838.000,00 €
Investment Cash Flows	13.420.000,00 €	25.000,00 €	1.241.000,00 €	87.000,00 €	376.000,00 €	38.000,00 €	1.692.000,00 €	15.000,00 €	237.000,00 €	-55.000,00 €
Financing Cash Flows	-5.109.000,00 €	7.200.000,00 €	12.556.000,00 €	6.950.000,00 €	6.052.000,00 €	9.196.000,00 €	4.933.000,00 €	9.529.000,00 €	8.298.000,00 €	9.399.000,00 €
Net increase / decrease in cash and cash equivalents	-455.000,00 €	61.000,00 €	-92.000,00 €	-13.000,00 €	14.000,00 €	133.000,00 €	249.000,00 €	86.000,00 €	2.742.000,00 €	-2.494.000,00 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Opening cash and cash equivalents	742.000,00 €	288.000,00 €	351.000,00 €	259.000,00 €	246.000,00 €	260.000,00 €	393.000,00 €	642.000,00 €	728.000,00 €	3.470.000,00 €
Closing cash and cash equivalents	287.000,00 €	349.000,00 €	259.000,00 €	246.000,00 €	260.000,00 €	393.000,00 €	642.000,00 €	728.000,00 €	3.470.000,00 €	976.000,00 €
ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	0,00 €	0,00 €	-5.156.000,00 €	-5.626.000,00 €	-2.420.000,00 €	17.019.000,00 €	167.000,00 €	157.000,00 €	-1.754.000,00 €	-11.252.000,00 €
Backlog	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Working Capital	-96.820.000,00 €	-108.973.000,00 €	-125.290.000,00 €	-138.519.000,00 €	-147.805.000,00 €	-140.995.000,00 €	-149.233.000,00 €	-159.388.000,00 €	-169.839.000,00 €	-178.021.000,00 €
Market Equity Value	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €	3.620.000,00 €

Table C-9: Financial Statement Information of BIOTEP A.E.

BIOTEP A.E.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	0,2703	0,2305	0,2075	0,1790	0,1706	0,1683	0,1563	0,1463	0,1224	0,1174
Quick Ratio	0,2654	0,2305	0,2075	0,1790	0,1706	0,1683	0,1563	0,1463	0,1218	0,1169
Cash Ratio	0,0023	0,0025	0,0017	0,0015	0,0015	0,0024	0,0037	0,0039	0,0180	0,0049
Inventory Turnover Ratio	5,3662	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	4,9727	3,0306
Average Selling Period	68,0189	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	#ΔΙΑΠ/0!	73,4004	120,4377
Working Capital Turnover Ratio	-0,0127	-0,0051	-0,0014	-0,0013	-0,0017	-0,0016	-0,0016	-0,0016	-0,0029	-0,0070
Asset Turnover Ratio	0,0123	0,0061	0,0020	0,0020	0,0028	0,0026	0,0029	0,0030	0,0061	0,0187
Fixed Asset Turnover Ratio	0,2335	0,1117	0,0378	0,0391	0,0604	0,0566	0,0633	0,0664	0,1441	0,3503
Equity Turnover Ratio	-0,0346	-0,0102	-0,0025	-0,0021	-0,0027	-0,0026	-0,0025	-0,0024	-0,0042	-0,0090
Gross Profit Margin	-1,8427	-9,4465	-36,0167	-28,2034	-14,9400	-6,3728	-3,8008	-0,0595	-0,0962	0,7633
Net Profit Margin	-8,2363	-33,4701	-97,5778	-74,3051	-35,9200	25,3816	-35,8577	-38,3492	-23,5992	-16,8359
EBITDA Margin	0,0000	0,0000	-28,6444	-31,7853	-9,6800	74,6447	0,6789	0,6230	-3,5150	-8,9657
Return on Assets (ROA)	-0,1013	-0,2029	-0,1955	-0,1516	-0,1019	0,0671	-0,1041	-0,1136	-0,1450	-0,3141
Return on Equity (ROE)	0,2852	0,3423	0,2458	0,1547	0,0957	-0,0657	0,0911	0,0907	0,0995	0,1515
Debt to Equity	-3,8142	-2,6871	-2,2576	-2,0204	-1,9395	-1,9796	-1,8751	-1,7988	-1,6867	-1,4824
Debt Ratio	1,3553	1,5927	1,7952	1,9800	2,0644	2,0208	2,1428	2,2519	2,4562	3,0729
Total Liabilities to Current Assets Ratio	3,7680	4,4357	4,9156	5,6876	5,9859	6,1099	6,5672	7,0145	8,4247	8,7286
Financial Leverage Ratio	-2,8142	-1,6871	-1,2576	-1,0204	-0,9395	-0,9796	-0,8750	-0,7988	-0,6867	-0,4824
Debt Coverage Ratio	-0,0649	-0,0495	-0,0861	-0,0410	-0,0352	-0,0522	-0,0351	-0,0494	-0,0290	-0,0573
Financial Autonomy Ratio	-0,3553	-0,5927	-0,7952	-0,9800	-1,0644	-1,0208	-1,1428	-1,2519	-1,4562	-2,0729
Cash Flow to Debt Ratio	-0,0753	-0,0579	-0,1019	-0,0492	-0,0430	-0,0574	-0,0390	-0,0547	-0,0320	-0,0621
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	-0,9708	-1,1988	-1,3945	-1,5967	-1,6768	-1,6349	-1,7608	-1,8732	-2,0907	-2,6467
X2 (Retained Earnings/Total Assets)	-0,1013	-0,2029	-0,1955	-0,1516	-0,1019	0,0671	-0,1041	-0,1136	-0,1450	-0,3141
X3 (EBITDA/Total Assets)	0,0000	0,0000	-0,0574	-0,0649	-0,0275	0,1973	0,0020	0,0018	-0,0216	-0,1673
X4 (Market Equity Value/Total Liabilities)	0,0268	0,0250	0,0224	0,0211	0,0199	0,0208	0,0199	0,0189	0,0181	0,0175
X5 (Sales/Total Assets)	0,0123	0,0061	0,0020	0,0020	0,0028	0,0026	0,0029	0,0030	0,0061	0,0187
ALTMAN Z-SCORE	-1,2785	-1,7016	-2,1210	-2,3276	-2,2306	-1,2016	-2,2373	-2,3865	-2,7661	-4,1387
X1 (Working Capital/Total Assets)	-0,9708	-1,1988	-1,3945	-1,5967	-1,6768	-1,6349	-1,7608	-1,8732	-2,0907	-2,6467
X2 (EBITDA/Total Assets)	0,0000	0,0000	-0,0574	-0,0649	-0,0275	0,1973	0,0020	0,0018	-0,0216	-0,1673
X3 (EBT/Current Liabilities)	-0,0655	-0,1244	-0,1125	-0,0772	-0,0447	0,0409	-0,0498	-0,0506	-0,0622	-0,1098
X4 (Sales/Total Assets)	0,0123	0,0061	0,0020	0,0020	0,0028	0,0026	0,0029	0,0030	0,0061	0,0187
SPRINGATE S-SCORE	-1,0382	-1,3145	-1,6860	-1,8939	-1,8397	-1,0501	-1,8393	-1,9560	-2,2583	-3,3047
X1 (Net Income/Total Assets)	-0,1013	-0,2029	-0,1955	-0,1516	-0,1019	0,0671	-0,1041	-0,1136	-0,1450	-0,3141
X2 (Total Liabilities/Total Assets)	1,3553	1,5927	1,7952	1,9800	2,0644	2,0208	2,1428	2,2519	2,4562	3,0729
X3 (Current Assets/Current Liabilities)	0,2703	0,2305	0,2075	0,1790	0,1706	0,1683	0,1563	0,1463	0,1224	0,1174
ZMIJEWSKI X-SCORE	3,8194	5,6257	6,7419	7,5933	7,8479	6,8380	8,3034	8,9657	10,2677	14,5330
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	5,9988	5,9603	5,9522	5,9374	5,9435	5,9392	5,9221	5,8838	5,8386	5,7428
B (Total Liabilities/Total Assets)	1,3553	1,5927	1,7952	1,9800	2,0644	2,0208	2,1428	2,2519	2,4562	3,0729
C (Working Capital/Total Assets)	-0,9708	-1,1988	-1,3945	-1,5967	-1,6768	-1,6349	-1,7608	-1,8732	-2,0907	-2,6467
D (Current Liabilities/Current Assets)	3,6990	4,3387	4,8185	5,5866	5,8620	5,9432	6,3964	6,8350	8,1710	8,5181
E (binary, if TL>TA = 1)	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
F (Net Income/Total Assets)	-0,1013	-0,2029	-0,1955	-0,1516	-0,1019	0,0671	-0,1041	-0,1136	-0,1450	-0,3141
G (Operating Cash Flows/Total Liabilities)	-0,0649	-0,0495	-0,0861	-0,0410	-0,0352	-0,0522	-0,0351	-0,0494	-0,0290	-0,0573
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,1405	-0,2920	0,0244	0,1436	0,1885	1,0000	-1,0000	-0,0456	-0,0985	-0,2842
OHLSON O-SCORE	4,6451	6,9047	8,6144	9,5486	10,0383	9,2166	11,5899	12,0087	13,7361	18,8642
OHLSON P-PROBABILITY	99,05%	99,90%	99,98%	99,99%	100,00%	99,99%	100,00%	100,00%	100,00%	100,00%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,0123	0,0061	0,0020	0,0020	0,0028	0,0026	0,0029	0,0030	0,0061	0,0187
Net Earnings/Total Assets	-0,1013	-0,2029	-0,1955	-0,1516	-0,1019	0,0671	-0,1041	-0,1136	-0,1450	-0,3141
EBITDA/Total Assets	0,0000	0,0000	-0,0574	-0,0649	-0,0275	0,1973	0,0020	0,0018	-0,0216	-0,1673
Backlog/Total Assets	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Current Assets/Total Assets	0,3597	0,3591	0,3652	0,3481	0,3449	0,3307	0,3263	0,3210	0,2916	0,3520
Non-Current Assets/Total Assets	0,6403	0,6409	0,6348	0,6519	0,6551	0,6693	0,6737	0,6790	0,7084	0,6480
Fixed Assets/Total Assets	0,0527	0,0543	0,0530	0,0522	0,0469	0,0467	0,0459	0,0446	0,0426	0,0533
Current Liabilities/Total Liabilities	0,9817	0,9781	0,9802	0,9822	0,9793	0,9727	0,9740	0,9744	0,9699	0,9759
Non-Current Liabilities/Total Liabilities	0,0183	0,0219	0,0198	0,0178	0,0207	0,0273	0,0260	0,0256	0,0301	0,0241
Short-term Bank Debt/Total Bank Debt	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
Long-term Bank Debt/Total Bank Debt	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Total Bank Debt/Total Assets	1,1681	1,3608	1,5165	1,6506	1,6931	1,8373	1,9277	2,0321	2,2307	2,8338

Table C-10: Financial Indicator – Variable Calculation of BIOTEP A.E.

ΓΕΚ ΤΕΠΝΑ Α.Ε.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	2.608.799.000,00 €	3.084.493.000,00 €	4.093.755.000,00 €	4.009.848.000,00 €	4.309.269.000,00 €	4.634.803.000,00 €	4.812.438.000,00 €	5.977.511.000,00 €	6.054.329.000,00 €	8.388.186.000,00 €
Non-Current Assets	1.400.224.000,00 €	1.647.786.000,00 €	2.679.994.000,00 €	2.644.083.000,00 €	3.013.538.000,00 €	2.835.383.000,00 €	2.512.675.000,00 €	2.874.423.000,00 €	2.984.639.000,00 €	5.026.928.000,00 €
Fixed Assets	976.171.000,00 €	1.087.192.000,00 €	1.246.267.000,00 €	1.332.693.000,00 €	1.670.747.000,00 €	1.493.649.000,00 €	1.251.374.000,00 €	1.423.774.000,00 €	1.502.397.000,00 €	177.864.000,00 €
Other Non-Current Assets	424.053.000,00 €	560.594.000,00 €	1.433.727.000,00 €	1.311.390.000,00 €	1.342.791.000,00 €	1.341.734.000,00 €	1.261.301.000,00 €	1.450.649.000,00 €	1.482.242.000,00 €	4.849.064.000,00 €
Current Assets	1.208.575.000,00 €	1.436.707.000,00 €	1.413.761.000,00 €	1.365.765.000,00 €	1.295.731.000,00 €	1.799.420.000,00 €	2.299.763.000,00 €	3.103.088.000,00 €	3.069.690.000,00 €	3.361.258.000,00 €
Inventory	78.500.000,00 €	56.606.000,00 €	54.365.000,00 €	52.756.000,00 €	57.609.000,00 €	51.125.000,00 €	63.379.000,00 €	66.427.000,00 €	66.930.000,00 €	49.179.000,00 €
Accounts Receivables	764.438.000,00 €	759.098.000,00 €	717.169.000,00 €	789.767.000,00 €	643.451.000,00 €	639.878.000,00 €	872.033.000,00 €	1.544.958.000,00 €	1.692.111.000,00 €	1.794.634.000,00 €
Cash and Cash Equivalents	365.637.000,00 €	621.003.000,00 €	642.227.000,00 €	523.242.000,00 €	594.671.000,00 €	1.108.417.000,00 €	1.364.351.000,00 €	1.491.703.000,00 €	1.310.649.000,00 €	1.517.445.000,00 €
TOTAL EQUITY	562.365.000,00 €	598.505.000,00 €	768.155.000,00 €	728.998.000,00 €	766.875.000,00 €	826.809.000,00 €	871.259.000,00 €	1.190.698.000,00 €	1.276.622.000,00 €	1.772.321.000,00 €
Shareholders' Equity	439.560.000,00 €	440.234.000,00 €	440.234.000,00 €	440.234.000,00 €	440.234.000,00 €	440.234.000,00 €	440.234.000,00 €	427.823.000,00 €	407.138.000,00 €	238.102.000,00 €
Reserves	404.394.000,00 €	413.983.000,00 €	523.209.000,00 €	617.937.000,00 €	678.959.000,00 €	786.340.000,00 €	824.867.000,00 €	1.043.236.000,00 €	1.009.450.000,00 €	617.016.000,00 €
Accumulated Retained Earnings	-281.589.000,00 €	-255.712.000,00 €	-195.288.000,00 €	-329.173.000,00 €	-352.318.000,00 €	-399.765.000,00 €	-393.842.000,00 €	-280.361.000,00 €	-139.966.000,00 €	917.103.000,00 €
TOTAL LIABILITIES	2.046.434.000,00 €	2.485.988.000,00 €	3.325.600.000,00 €	3.280.850.000,00 €	3.542.394.000,00 €	3.807.994.000,00 €	3.941.179.000,00 €	4.786.813.000,00 €	4.777.707.000,00 €	6.615.965.000,00 €
Non-Current Liabilities (w/o Bank Debt)	623.483.000,00 €	592.398.000,00 €	872.050.000,00 €	623.746.000,00 €	812.391.000,00 €	771.995.000,00 €	570.601.000,00 €	673.553.000,00 €	645.883.000,00 €	469.085.000,00 €
Long-term Provisions	29.797.000,00 €	51.260.000,00 €	41.445.000,00 €	52.458.000,00 €	42.718.000,00 €	35.718.000,00 €	33.134.000,00 €	34.296.000,00 €	40.544.000,00 €	16.599.000,00 €
Long-term Bank Debt (1 to 5 years)	491.358.000,00 €	827.531.000,00 €	1.232.574.000,00 €	1.567.788.000,00 €	1.788.773.000,00 €	2.198.693.000,00 €	2.386.217.000,00 €	2.672.299.000,00 €	2.737.058.000,00 €	4.401.960.000,00 €
Total Non-Current Liabilities	1.144.638.000,00 €	1.471.189.000,00 €	2.146.069.000,00 €	2.243.992.000,00 €	2.643.882.000,00 €	3.006.406.000,00 €	2.989.952.000,00 €	3.380.148.000,00 €	3.423.485.000,00 €	4.887.644.000,00 €
Current Liabilities (w/o Bank Debt)	631.049.000,00 €	834.552.000,00 €	697.492.000,00 €	760.527.000,00 €	662.791.000,00 €	575.125.000,00 €	741.606.000,00 €	1.102.572.000,00 €	1.073.623.000,00 €	1.322.546.000,00 €
Short-term Bank Debt (up to 1 year)	270.747.000,00 €	180.247.000,00 €	482.039.000,00 €	276.331.000,00 €	235.721.000,00 €	226.463.000,00 €	209.621.000,00 €	304.093.000,00 €	280.599.000,00 €	405.775.000,00 €
Total Current Liabilities	901.796.000,00 €	1.014.799.000,00 €	1.179.531.000,00 €	1.036.858.000,00 €	898.512.000,00 €	801.588.000,00 €	951.227.000,00 €	1.406.665.000,00 €	1.354.222.000,00 €	1.728.321.000,00 €
TOTAL EQUITY AND LIABILITIES	2.608.799.000,00 €	3.084.493.000,00 €	4.093.755.000,00 €	4.009.848.000,00 €	4.309.269.000,00 €	4.634.803.000,00 €	4.812.438.000,00 €	5.977.511.000,00 €	6.054.329.000,00 €	8.388.186.000,00 €
Total Bank Debt	762.105.000,00 €	1.007.778.000,00 €	1.714.613.000,00 €	1.844.119.000,00 €	2.024.494.000,00 €	2.425.156.000,00 €	2.595.838.000,00 €	2.976.392.000,00 €	3.017.657.000,00 €	4.807.735.000,00 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	971.773.000,00 €	1.163.480.000,00 €	1.185.531.000,00 €	1.402.700.000,00 €	1.155.739.000,00 €	891.905.000,00 €	1.144.199.000,00 €	3.938.278.000,00 €	3.252.257.000,00 €	3.249.861.000,00 €
Production Cost	-862.453.000,00 €	-950.579.000,00 €	-950.382.000,00 €	-1.165.281.000,00 €	-919.263.000,00 €	-704.736.000,00 €	-889.571.000,00 €	-3.332.589.000,00 €	-2.916.461.000,00 €	-2.912.709.000,00 €
Gross Income	109.320.000,00 €	212.901.000,00 €	235.149.000,00 €	237.419.000,00 €	236.476.000,00 €	187.169.000,00 €	254.628.000,00 €	605.689.000,00 €	335.796.000,00 €	337.152.000,00 €
Other Income	9.082.000,00 €	0,00 €	0,00 €	0,00 €	0,00 €	5.751.000,00 €	28.371.000,00 €	0,00 €	0,00 €	0,00 €
Operational Cost	-35.802.000,00 €	-38.555.000,00 €	-47.673.000,00 €	-66.878.000,00 €	-79.589.000,00 €	-83.655.000,00 €	-87.651.000,00 €	-163.205.000,00 €	-82.082.000,00 €	-117.291.000,00 €
Other Costs	0,00 €	-16.075.000,00 €	-5.797.000,00 €	-5.240.000,00 €	-3.162.000,00 €	0,00 €	0,00 €	-32.903.000,00 €	-1.805.000,00 €	-70.276.000,00 €
Operation Results	82.600.000,00 €	158.271.000,00 €	181.679.000,00 €	165.301.000,00 €	153.725.000,00 €	109.265.000,00 €	195.348.000,00 €	409.581.000,00 €	251.909.000,00 €	149.585.000,00 €
Financial Results	-63.782.000,00 €	-64.652.000,00 €	-28.229.000,00 €	-104.486.000,00 €	-75.907.000,00 €	-56.149.000,00 €	-49.724.000,00 €	-166.295.000,00 €	-61.089.000,00 €	-96.500.000,00 €
Earnings before Tax	18.818.000,00 €	93.619.000,00 €	153.450.000,00 €	60.815.000,00 €	77.818.000,00 €	53.116.000,00 €	145.624.000,00 €	243.286.000,00 €	190.820.000,00 €	53.085.000,00 €
Tax	-23.070.000,00 €	-47.800.000,00 €	-58.663.000,00 €	-24.974.000,00 €	-22.086.000,00 €	-13.042.000,00 €	-15.404.000,00 €	-65.938.000,00 €	-63.505.000,00 €	-35.399.000,00 €
Net Income	-4.252.000,00 €	45.819.000,00 €	94.787.000,00 €	35.841.000,00 €	55.732.000,00 €	40.074.000,00 €	130.220.000,00 €	177.348.000,00 €	127.315.000,00 €	17.686.000,00 €
Actuarial Gains / Losses	4.046.000,00 €	2.414.000,00 €	42.785.000,00 €	-8.823.000,00 €	-9.578.000,00 €	13.190.000,00 €	-46.379.000,00 €	146.708.000,00 €	43.209.000,00 €	808.302.000,00 €
Total Net Income	-206.000,00 €	48.233.000,00 €	137.572.000,00 €	30.018.000,00 €	46.154.000,00 €	53.264.000,00 €	83.841.000,00 €	324.056.000,00 €	170.524.000,00 €	825.988.000,00 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	175.159.000,00 €	311.176.000,00 €	7.616.000,00 €	96.442.000,00 €	238.140.000,00 €	316.217.000,00 €	313.918.000,00 €	244.012.000,00 €	235.149.000,00 €	427.008.000,00 €
Investment Cash Flows	-101.160.000,00 €	-222.656.000,00 €	-167.934.000,00 €	-256.473.000,00 €	-238.258.000,00 €	-144.731.000,00 €	-218.621.000,00 €	-291.490.000,00 €	-184.249.000,00 €	-2.962.038.000,00 €
Financing Cash Flows	-66.873.000,00 €	164.338.000,00 €	187.718.000,00 €	38.879.000,00 €	71.281.000,00 €	347.264.000,00 €	159.814.000,00 €	173.033.000,00 €	-232.425.000,00 €	2.740.607.000,00 €
Net increase / decrease in cash and cash equivalents	7.126.000,00 €	252.858.000,00 €	27.400.000,00 €	-121.152.000,00 €	71.163.000,00 €	518.750.000,00 €	255.111.000,00 €	125.555.000,00 €	-181.525.000,00 €	205.577.000,00 €
Acquisitions	5.772.000,00 €	2.508.000,00 €	-6.176.000,00 €	2.167.000,00 €	266.000,00 €	-5.004.000,00 €	823.000,00 €	1.797.000,00 €	471.000,00 €	1.219.000,00 €
Opening cash and cash equivalents	352.739.000,00 €	365.637.000,00 €	621.003.000,00 €	642.227.000,00 €	523.242.000,00 €	594.671.000,00 €	1.108.417.000,00 €	1.364.351.000,00 €	1.491.703.000,00 €	1.310.649.000,00 €
Closing cash and cash equivalents	365.637.000,00 €	621.003.000,00 €	642.227.000,00 €	523.242.000,00 €	594.671.000,00 €	1.108.417.000,00 €	1.364.351.000,00 €	1.491.703.000,00 €	1.310.649.000,00 €	1.517.445.000,00 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	155.200.000,00 €	252.800.000,00 €	279.900.000,00 €	280.800.000,00 €	285.100.000,00 €	242.000.000,00 €	323.500.000,00 €	661.800.000,00 €	412.300.000,00 €	404.000.000,00 €
Backlog	2.770.000.000,00 €	2.485.000.000,00 €	1.600.000.000,00 €	1.600.000.000,00 €	1.661.000.000,00 €	1.600.000.000,00 €	2.500.000.000,00 €	2.900.000.000,00 €	2.800.000.000,00 €	4.100.000.000,00 €
Working Capital	306.779.000,00 €	421.908.000,00 €	234.230.000,00 €	328.907.000,00 €	397.219.000,00 €	997.832.000,00 €	1.348.536.000,00 €	1.696.423.000,00 €	1.715.468.000,00 €	1.632.937.000,00 €
Market Equity Value	157.000.000,00 €	233.000.000,00 €	452.000.000,00 €	414.000.000,00 €	712.000.000,00 €	790.000.000,00 €	980.000.000,00 €	1.130.000.000,00 €	1.360.000.000,00 €	1.910.000.000,00 €

Table C-11: Financial Statement Information of ΓΕΚ ΤΕΠΝΑ Α.Ε.

ΓΕΚ ΤΕΡΝΑ Α.Ε.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	1,3402	1,4158	1,1986	1,3172	1,4421	2,2448	2,4177	2,2060	2,2668	1,9448
Quick Ratio	1,2531	1,3600	1,1525	1,2663	1,3780	2,1810	2,3511	2,1588	2,2173	1,9164
Cash Ratio	0,4055	0,6119	0,5445	0,5046	0,6618	1,3828	1,4343	1,0605	0,9678	0,8780
Inventory Turnover Ratio	10,9867	16,7929	17,4815	22,0881	15,9569	13,7846	14,0357	50,1692	43,5748	59,2267
Average Selling Period	33,2221	21,7354	20,8792	16,5247	22,8741	26,4789	26,0050	7,2754	8,3764	6,1628
Working Capital Turnover Ratio	3,1677	2,7577	5,0614	4,2647	2,9096	0,8938	0,8485	2,3215	1,8958	1,9902
Asset Turnover Ratio	0,3725	0,3772	0,2896	0,3498	0,2682	0,1924	0,2378	0,6588	0,5372	0,3874
Fixed Asset Turnover Ratio	0,9955	1,0702	0,9513	1,0525	0,6917	0,5971	0,9144	2,7661	2,1647	18,2716
Equity Turnover Ratio	1,7280	1,9440	1,5433	1,9241	1,5071	1,0787	1,3133	3,3075	2,5475	1,8338
Gross Profit Margin	0,1125	0,1830	0,1983	0,1693	0,2046	0,2099	0,2225	0,1538	0,1033	0,1037
Net Profit Margin	-0,0002	0,0415	0,1160	0,0214	0,0399	0,0597	0,0733	0,0823	0,0524	0,2542
EBITDA Margin	0,1597	0,2173	0,2361	0,2002	0,2467	0,2713	0,2827	0,1680	0,1268	0,1243
Return on Assets (ROA)	-0,0001	0,0156	0,0336	0,0075	0,0107	0,0115	0,0174	0,0542	0,0282	0,0985
Return on Equity (ROE)	-0,0004	0,0806	0,1791	0,0412	0,0602	0,0644	0,0962	0,2722	0,1336	0,4661
Debt to Equity	3,6390	4,1537	4,3293	4,5005	4,6193	4,6057	4,5235	4,0202	3,7425	3,7331
Debt Ratio	0,7844	0,8060	0,8124	0,8182	0,8220	0,8216	0,8190	0,8008	0,7891	0,7887
Total Liabilities to Current Assets Ratio	1,6933	1,7303	2,3523	2,4022	2,7339	2,1162	1,7137	1,5426	1,5564	1,9683
Financial Leverage Ratio	4,6390	5,1537	5,3293	5,5005	5,6193	5,6057	5,5235	5,0202	4,7425	4,7331
Debt Coverage Ratio	0,0856	0,1252	0,0023	0,0294	0,0672	0,0830	0,0797	0,0510	0,0492	0,0645
Financial Autonomy Ratio	0,2156	0,1940	0,1876	0,1818	0,1780	0,1784	0,1810	0,1992	0,2109	0,2113
Cash Flow to Debt Ratio	0,2298	0,3088	0,0044	0,0523	0,1176	0,1304	0,1209	0,0820	0,0779	0,0888
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	0,1176	0,1368	0,0572	0,0820	0,0922	0,2153	0,2802	0,2838	0,2833	0,1947
X2 (Retained Earnings/Total Assets)	-0,0001	0,0156	0,0336	0,0075	0,0107	0,0115	0,0174	0,0542	0,0282	0,0985
X3 (EBITDA/Total Assets)	0,0595	0,0820	0,0684	0,0700	0,0662	0,0522	0,0672	0,1107	0,0681	0,0482
X4 (Market Equity Value/Total Liabilities)	0,0767	0,0937	0,1359	0,1262	0,2010	0,2075	0,2487	0,2361	0,2847	0,2887
X5 (Sales/Total Assets)	0,3725	0,3772	0,2896	0,3498	0,2682	0,1924	0,2378	0,6588	0,5372	0,3874
ALTMAN Z-SCORE	0,7559	0,8899	0,7125	0,7655	0,7327	0,7637	0,9694	1,5823	1,3121	1,0911
X1 (Working Capital/Total Assets)	0,1176	0,1368	0,0572	0,0820	0,0922	0,2153	0,2802	0,2838	0,2833	0,1947
X2 (EBITDA/Total Assets)	0,0595	0,0820	0,0684	0,0700	0,0662	0,0522	0,0672	0,1107	0,0681	0,0482
X3 (EBT/Current Liabilities)	0,0209	0,0923	0,1301	0,0587	0,0866	0,0663	0,1531	0,1730	0,1409	0,0307
X4 (Sales/Total Assets)	0,3725	0,3772	0,2896	0,3498	0,2682	0,1924	0,2378	0,6588	0,5372	0,3874
SPRINGATE S-SCORE	0,4665	0,6043	0,4705	0,4781	0,4625	0,5028	0,6911	1,0099	0,8088	0,5236
X1 (Net Income/Total Assets)	-0,0001	0,0156	0,0336	0,0075	0,0107	0,0115	0,0174	0,0542	0,0282	0,0985
X2 (Total Liabilities/Total Assets)	0,7844	0,8060	0,8124	0,8182	0,8220	0,8216	0,8190	0,8008	0,7891	0,7887
X3 (Current Assets/Current Liabilities)	1,3402	1,4158	1,1986	1,3172	1,4421	2,2448	2,4177	2,2060	2,2668	1,9448
ZMIJEWSKI X-SCORE	0,1245	0,1762	0,1305	0,2820	0,2898	0,2870	0,2459	-0,0241	0,0275	-0,2935
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	7,4164	7,4909	7,6108	7,6023	7,6327	7,6695	7,6763	7,7304	7,7109	7,8387
B (Total Liabilities/Total Assets)	0,7844	0,8060	0,8124	0,8182	0,8220	0,8216	0,8190	0,8008	0,7891	0,7887
C (Working Capital/Total Assets)	0,1176	0,1368	0,0572	0,0820	0,0922	0,2153	0,2802	0,2838	0,2833	0,1947
D (Current Liabilities/Current Assets)	0,7462	0,7063	0,8343	0,7592	0,6934	0,4455	0,4136	0,4533	0,4412	0,5142
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,0001	0,0156	0,0336	0,0075	0,0107	0,0115	0,0174	0,0542	0,0282	0,0985
G (Operating Cash Flows/Total Liabilities)	0,0856	0,1252	0,0023	0,0294	0,0672	0,0830	0,0797	0,0510	0,0492	0,0645
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,9945	1,0000	0,4808	-0,6418	0,2118	0,0715	0,2230	0,5889	-0,3104	0,6578
OHLSON O-SCORE	-0,3946	-0,4381	0,4129	0,7226	0,1923	0,3072	0,1064	-0,2525	0,2183	-0,4030
OHLSON P-PROBABILITY	40,26%	39,22%	60,18%	67,32%	54,79%	57,62%	52,66%	43,72%	55,44%	40,06%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,3725	0,3772	0,2896	0,3498	0,2682	0,1924	0,2378	0,6588	0,5372	0,3874
Net Earnings/Total Assets	-0,0001	0,0156	0,0336	0,0075	0,0107	0,0115	0,0174	0,0542	0,0282	0,0985
EBITDA/Total Assets	0,0595	0,0820	0,0684	0,0700	0,0662	0,0522	0,0672	0,1107	0,0681	0,0482
Backlog/Total Assets	1,0618	0,8056	0,3908	0,3990	0,3854	0,3452	0,5195	0,4852	0,4625	0,4888
Current Assets/Total Assets	0,4633	0,4658	0,3453	0,3406	0,3007	0,3882	0,4779	0,5191	0,5070	0,4007
Non-Current Assets/Total Assets	0,5367	0,5342	0,6547	0,6594	0,6993	0,6118	0,5221	0,4809	0,4930	0,5993
Fixed Assets/Total Assets	0,3742	0,3525	0,3044	0,3324	0,3877	0,3223	0,2600	0,2382	0,2482	0,0212
Current Liabilities/Total Liabilities	0,4407	0,4082	0,3547	0,3160	0,2536	0,2105	0,2414	0,2939	0,2834	0,2612
Non-Current Liabilities/Total Liabilities	0,5593	0,5918	0,6453	0,6840	0,7464	0,7895	0,7586	0,7061	0,7166	0,7388
Short-term Bank Debt/Total Bank Debt	0,3553	0,1789	0,2811	0,1498	0,1164	0,0934	0,0808	0,1022	0,0930	0,0844
Long-term Bank Debt/Total Bank Debt	0,6447	0,8211	0,7189	0,8502	0,8836	0,9066	0,9192	0,8978	0,9070	0,9156
Total Bank Debt/Total Assets	0,2921	0,3267	0,4188	0,4599	0,4698	0,5232	0,5394	0,4979	0,4984	0,5732

Table C-12: Financial Indicator – Variable Calculation of ΓΕΚ ΤΕΡΝΑ Α.Ε.

J&P ABAE A.E.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	1.311.025.796,00 €	1.304.964.329,00 €	1.237.892.907,00 €	1.116.438.646,00 €	1.534.692.337,00 €	1.210.975.257,00 €	1.196.437.265,00 €	1.076.468.667,00 €	1.202.754.378,00 €	1.229.997.445,00 €
Non-Current Assets	531.214.547,00 €	531.593.948,00 €	569.529.077,00 €	588.327.292,00 €	990.676.464,00 €	598.471.695,00 €	637.401.718,00 €	549.364.872,00 €	567.411.029,00 €	465.384.094,00 €
Fixed Assets	98.743.357,00 €	94.553.112,00 €	111.700.744,00 €	120.187.673,00 €	103.227.418,00 €	123.261.026,00 €	48.455.785,00 €	41.704.343,00 €	42.181.700,00 €	51.938.978,00 €
Other Non-Current Assets	432.471.190,00 €	437.040.836,00 €	457.828.333,00 €	468.139.619,00 €	887.449.046,00 €	475.210.669,00 €	588.945.933,00 €	507.660.529,00 €	525.229.329,00 €	413.445.116,00 €
Current Assets	779.811.249,00 €	773.370.381,00 €	668.363.830,00 €	528.111.354,00 €	544.015.873,00 €	612.503.562,00 €	559.035.547,00 €	527.103.795,00 €	635.343.349,00 €	764.613.351,00 €
Inventory	36.796.952,00 €	33.333.303,00 €	39.204.491,00 €	145.824.819,00 €	145.203.473,00 €	198.722.575,00 €	191.768.045,00 €	169.957.339,00 €	246.530.593,00 €	330.743.223,00 €
Accounts Receivables	627.117.256,00 €	650.766.074,00 €	555.100.227,00 €	310.484.286,00 €	278.728.240,00 €	330.518.830,00 €	253.176.678,00 €	270.520.566,00 €	311.868.063,00 €	362.896.056,00 €
Cash and Cash Equivalents	115.897.041,00 €	89.271.004,00 €	74.059.112,00 €	71.802.249,00 €	120.084.160,00 €	83.262.157,00 €	114.090.824,00 €	86.625.890,00 €	76.944.695,00 €	70.974.072,00 €
TOTAL EQUITY	177.412.794,00 €	115.774.656,00 €	109.751.361,00 €	87.827.415,00 €	78.259.055,00 €	92.023.786,00 €	110.418.015,00 €	154.910.269,00 €	159.722.303,00 €	157.579.322,00 €
Shareholders' Equity	190.660.706,00 €	190.740.500,00 €	191.366.076,00 €	169.003.081,00 €	184.012.696,00 €	203.773.112,00 €	204.140.159,00 €	190.852.214,00 €	191.056.917,00 €	191.072.049,00 €
Reserves	71.906.290,00 €	82.958.411,00 €	108.650.936,00 €	150.597.679,00 €	248.437.880,00 €	254.737.042,00 €	355.740.599,00 €	432.936.771,00 €	699.111.321,00 €	58.130.688,00 €
Accumulated Retained Earnings	-85.154.202,00 €	-157.924.255,00 €	-190.265.651,00 €	-231.773.345,00 €	-354.191.521,00 €	-366.486.368,00 €	-449.462.743,00 €	-468.878.716,00 €	-730.445.925,00 €	-91.623.415,00 €
TOTAL LIABILITIES	1.133.613.003,00 €	1.189.189.673,00 €	1.128.141.547,00 €	1.028.611.234,00 €	1.456.433.285,00 €	1.118.951.473,00 €	1.086.019.250,00 €	921.558.401,00 €	1.043.032.076,00 €	1.072.418.123,00 €
Non-Current Liabilities (w/o Bank Debt)	49.774.058,00 €	36.122.638,00 €	35.550.488,00 €	32.750.044,00 €	62.715.286,00 €	73.087.050,00 €	62.709.952,00 €	81.741.287,00 €	94.796.827,00 €	95.987.818,00 €
Long-term Provisions	36.048.377,00 €	53.436.000,00 €	36.707.063,00 €	34.728.537,00 €	35.936.062,00 €	40.225.646,00 €	41.267.998,00 €	34.237.095,00 €	207.782.455,00 €	195.391.455,00 €
Long-term Bank Debt (1 to 5 years)	419.168.456,00 €	420.486.667,00 €	471.919.407,00 €	475.666.644,00 €	474.065.659,00 €	461.017.820,00 €	334.885.593,00 €	228.928.071,00 €	197.027.160,00 €	210.463.402,00 €
Total Non-Current Liabilities	504.990.891,00 €	510.045.305,00 €	544.176.958,00 €	543.145.225,00 €	572.717.007,00 €	574.330.516,00 €	438.863.543,00 €	344.906.453,00 €	499.606.442,00 €	501.842.675,00 €
Current Liabilities (w/o Bank Debt)	456.176.429,00 €	527.630.201,00 €	462.773.622,00 €	365.744.983,00 €	813.339.467,00 €	448.528.772,00 €	539.676.706,00 €	498.531.166,00 €	481.022.701,00 €	499.692.048,00 €
Short-term Bank Debt (up to 1 year)	172.445.683,00 €	151.514.167,00 €	121.190.967,00 €	119.721.026,00 €	70.376.811,00 €	96.092.185,00 €	107.479.001,00 €	78.120.782,00 €	62.402.933,00 €	70.883.400,00 €
Total Current Liabilities	628.622.112,00 €	679.144.368,00 €	583.964.589,00 €	485.466.009,00 €	883.716.278,00 €	544.620.957,00 €	647.155.707,00 €	576.651.948,00 €	543.425.634,00 €	570.575.448,00 €
TOTAL EQUITY AND LIABILITIES	1.311.025.797,00 €	1.304.964.329,00 €	1.237.892.908,00 €	1.116.438.649,00 €	1.534.692.340,00 €	1.210.975.259,00 €	1.196.437.265,00 €	1.076.468.670,00 €	1.202.754.379,00 €	1.229.997.445,00 €
Total Bank Debt	591.614.139,00 €	572.000.834,00 €	593.110.374,00 €	595.387.670,00 €	544.442.470,00 €	557.110.005,00 €	442.364.594,00 €	307.048.853,00 €	259.430.095,00 €	281.346.802,00 €
INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	456.197.943,00 €	541.189.155,00 €	673.077.032,00 €	538.385.578,00 €	575.927.296,00 €	462.735.572,00 €	592.214.529,00 €	402.709.185,00 €	453.546.704,00 €	651.496.479,00 €
Production Cost	-387.927.048,00 €	-510.687.153,00 €	-636.294.209,00 €	-507.145.259,00 €	-533.338.883,00 €	-409.485.798,00 €	-560.583.357,00 €	-381.837.666,00 €	-416.770.292,00 €	-569.153.633,00 €
Gross Income	68.270.895,00 €	30.502.002,00 €	36.782.823,00 €	31.240.319,00 €	42.588.413,00 €	53.249.774,00 €	31.631.172,00 €	20.871.519,00 €	36.776.412,00 €	82.342.846,00 €
Other Income	11.310.147,00 €	30.838.063,00 €	34.862.500,00 €	44.316.416,00 €	41.844.127,00 €	28.786.495,00 €	40.134.256,00 €	65.913.680,00 €	39.237.738,00 €	44.309.882,00 €
Operational Cost	-31.782.219,00 €	-25.090.189,00 €	-32.209.374,00 €	-36.588.545,00 €	-42.532.312,00 €	-33.312.398,00 €	-33.803.756,00 €	-40.960.649,00 €	-31.860.255,00 €	-34.881.233,00 €
Other Costs	-14.801.190,00 €	-61.951.356,00 €	-4.692.051,00 €	-14.519.398,00 €	-26.307.169,00 €	-17.303.201,00 €	-15.733.552,00 €	-6.537.221,00 €	-6.640.534,00 €	-29.112.320,00 €
Operation Results	32.997.633,00 €	-25.701.480,00 €	34.743.898,00 €	24.448.792,00 €	15.593.059,00 €	31.420.670,00 €	22.228.120,00 €	39.287.329,00 €	37.513.361,00 €	62.659.175,00 €
Financial Results	-32.092.310,00 €	-32.597.170,00 €	-37.103.499,00 €	-32.793.929,00 €	-26.829.802,00 €	-24.280.732,00 €	-22.254.347,00 €	-20.744.154,00 €	-20.826.605,00 €	-24.675.914,00 €
Earnings before Tax	905.323,00 €	-58.298.650,00 €	-2.359.601,00 €	-8.345.137,00 €	-11.236.743,00 €	7.139.938,00 €	-26.227,00 €	18.543.175,00 €	16.686.756,00 €	37.983.261,00 €
Tax	-6.212.532,00 €	6.650.569,00 €	-8.192.524,00 €	-16.114.600,00 €	-6.388.083,00 €	3.334.880,00 €	2.033.663,00 €	-5.626.864,00 €	-6.660.562,00 €	-16.374.428,00 €
Net Income	-5.307.209,00 €	-51.648.081,00 €	-10.552.125,00 €	-24.459.737,00 €	-17.624.826,00 €	10.474.818,00 €	2.007.436,00 €	12.916.311,00 €	10.026.194,00 €	21.608.833,00 €
Actuarial Gains / Losses	-32.328.477,00 €	8.478.164,00 €	0,00 €	-1.842.523,00 €	-25.501.205,00 €	-4.407.914,00 €	-14.400.002,00 €	26.966.208,00 €	381.987,00 €	8.829.678,00 €
Total Net Income	-37.635.686,00 €	-43.169.917,00 €	-10.552.125,00 €	-26.302.260,00 €	-43.126.031,00 €	6.066.904,00 €	-12.392.566,00 €	39.882.519,00 €	10.408.191,00 €	30.438.511,00 €
CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-15.853.042,00 €	-21.600.902,00 €	-32.408.631,00 €	-19.484.810,00 €	99.465.035,00 €	-69.922.764,00 €	49.856.639,00 €	-14.447.335,00 €	61.292.814,00 €	-36.811.999,00 €
Investment Cash Flows	53.263.731,00 €	6.656.814,00 €	-890.227,00 €	9.374.463,00 €	20.727.980,00 €	36.749.565,00 €	72.227.369,00 €	157.937.224,00 €	24.196.889,00 €	54.256.115,00 €
Financing Cash Flows	-13.729.592,00 €	-3.151.397,00 €	21.108.770,00 €	2.277.296,00 €	-117.788.384,00 €	-3.648.804,00 €	-89.807.383,00 €	-163.393.257,00 €	-97.731.744,00 €	-31.508.269,00 €
Net increase / decrease in cash and cash equivalents	23.681.097,00 €	-18.095.485,00 €	-12.190.088,00 €	-7.833.051,00 €	2.404.631,00 €	-36.822.003,00 €	32.276.625,00 €	-19.903.368,00 €	-12.242.041,00 €	-14.064.153,00 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	7.488.856,00 €	16.286.741,00 €	26.815.477,00 €	6.270.291,00 €	1.411.351,00 €	-877.210,00 €
Opening cash and cash equivalents	80.113.779,00 €	103.794.875,00 €	85.699.390,00 €	73.509.303,00 €	61.158.825,00 €	71.052.312,00 €	50.517.050,00 €	109.609.151,00 €	95.976.073,00 €	85.145.382,00 €
Closing cash and cash equivalents	103.794.876,00 €	85.699.390,00 €	73.509.302,00 €	65.676.252,00 €	71.052.312,00 €	50.517.050,00 €	109.609.152,00 €	95.976.074,00 €	85.145.383,00 €	70.204.019,00 €
ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	26.447.597,00 €	49.822.860,00 €	49.872.607,00 €	49.383.833,00 €	58.082.913,00 €	62.317.978,00 €	50.982.981,00 €	58.228.341,00 €	60.763.846,00 €	105.311.575,00 €
Backlog	1.600.000.000,00 €	1.700.000.000,00 €	1.230.000.000,00 €	1.000.000.000,00 €	1.300.000.000,00 €	1.000.000.000,00 €	1.383.000.000,00 €	1.861.000.000,00 €	3.047.000.000,00 €	2.892.000.000,00 €
Working Capital	151.189.137,00 €	94.226.013,00 €	84.399.241,00 €	42.645.345,00 €	-339.700.405,00 €	67.882.605,00 €	-88.120.160,00 €	-49.548.153,00 €	91.917.715,00 €	194.037.903,00 €
Market Equity Value	25.100.000,00 €	31.600.000,00 €	71.200.000,00 €	33.500.000,00 €	54.300.000,00 €	120.000.000,00 €	160.000.000,00 €	110.000.000,00 €	290.000.000,00 €	230.000.000,00 €

Table C-13: Financial Statement Information of J&P ABAE A.E.

J&P ΑΒΑΞ Α.Ε.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	1,2405	1,1387	1,1445	1,0878	0,6156	1,1246	0,8638	0,9141	1,1691	1,3401
Quick Ratio	1,1820	1,0897	1,0774	0,7875	0,4513	0,7598	0,5675	0,6193	0,7155	0,7604
Cash Ratio	0,1844	0,1314	0,1268	0,1479	0,1359	0,1529	0,1763	0,1502	0,1416	0,1244
Inventory Turnover Ratio	10,5424	15,3206	16,2301	3,4778	3,6730	2,0606	2,9232	2,2467	1,6905	1,7208
Average Selling Period	34,6222	23,8241	22,4890	104,9523	99,3726	177,1337	124,8616	162,4628	215,9071	212,1067
Working Capital Turnover Ratio	3,0174	5,7435	7,9749	12,6247	-1,6954	6,8167	-6,7205	-8,1276	4,9343	3,3576
Asset Turnover Ratio	0,3480	0,4147	0,5437	0,4822	0,3753	0,3821	0,4950	0,3741	0,3771	0,5297
Fixed Asset Turnover Ratio	4,6200	5,7237	6,0257	4,4795	5,5792	3,7541	12,2218	9,6563	10,7522	12,5435
Equity Turnover Ratio	2,5714	4,6745	6,1327	6,1300	7,3592	5,0284	5,3634	2,5996	2,8396	4,1344
Gross Profit Margin	0,1497	0,0564	0,0546	0,0580	0,0739	0,1151	0,0534	0,0518	0,0811	0,1264
Net Profit Margin	-0,0825	-0,0798	-0,0157	-0,0489	-0,0749	0,0131	-0,0209	0,0990	0,0229	0,0467
EBITDA Margin	0,0580	0,0921	0,0741	0,0917	0,1009	0,1347	0,0861	0,1446	0,1340	0,1616
Return on Assets (ROA)	-0,0287	-0,0331	-0,0085	-0,0236	-0,0281	0,0050	-0,0104	0,0370	0,0087	0,0247
Return on Equity (ROE)	-0,2121	-0,3729	-0,0961	-0,2995	-0,5511	0,0659	-0,1122	0,2575	0,0652	0,1932
Debt to Equity	6,3897	10,2716	10,2791	11,7117	18,6104	12,1594	9,8355	5,9490	6,5303	6,8056
Debt Ratio	0,8647	0,9113	0,9113	0,9213	0,9490	0,9240	0,9077	0,8561	0,8672	0,8719
Total Liabilities to Current Assets Ratio	1,4537	1,5377	1,6879	1,9477	2,6772	1,8268	1,9427	1,7483	1,6417	1,4026
Financial Leverage Ratio	7,3897	11,2716	11,2791	12,7117	19,6104	13,1594	10,8355	6,9490	7,5303	7,8056
Debt Coverage Ratio	-0,0140	-0,0182	-0,0287	-0,0189	0,0683	-0,0625	0,0459	-0,0157	0,0588	-0,0343
Financial Autonomy Ratio	0,1353	0,0887	0,0887	0,0787	0,0510	0,0760	0,0923	0,1439	0,1328	0,1281
Cash Flow to Debt Ratio	-0,0268	-0,0378	-0,0546	-0,0327	0,1827	-0,1255	0,1127	-0,0471	0,2363	-0,1308
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	0,1153	0,0722	0,0682	0,0382	-0,2213	0,0561	-0,0737	-0,0460	0,0764	0,1578
X2 (Retained Earnings/Total Assets)	-0,0287	-0,0331	-0,0085	-0,0236	-0,0281	0,0050	-0,0104	0,0370	0,0087	0,0247
X3 (EBITDA/Total Assets)	0,0202	0,0382	0,0403	0,0442	0,0378	0,0515	0,0426	0,0541	0,0505	0,0856
X4 (Market Equity Value/Total Liabilities)	0,0221	0,0266	0,0631	0,0326	0,0373	0,1072	0,1473	0,1194	0,2780	0,2145
X5 (Sales/Total Assets)	0,3480	0,4147	0,5437	0,4822	0,3753	0,3821	0,4950	0,3741	0,3771	0,5297
ALTMAN Z-SCORE	0,5260	0,5970	0,7844	0,6606	0,2176	0,6906	0,6211	0,6209	0,8145	1,1648
X1 (Working Capital/Total Assets)	0,1153	0,0722	0,0682	0,0382	-0,2213	0,0561	-0,0737	-0,0460	0,0764	0,1578
X2 (EBITDA/Total Assets)	0,0202	0,0382	0,0403	0,0442	0,0378	0,0515	0,0426	0,0541	0,0505	0,0856
X3 (EBT/Current Liabilities)	0,0014	-0,0858	-0,0040	-0,0172	-0,0127	0,0131	0,0000	0,0322	0,0307	0,0666
X4 (Sales/Total Assets)	0,3480	0,4147	0,5437	0,4822	0,3753	0,3821	0,4950	0,3741	0,3771	0,5297
SPRINGATE S-SCORE	0,3209	0,3008	0,4087	0,3567	0,0299	0,3772	0,2529	0,2895	0,4049	0,6811
X1 (Net Income/Total Assets)	-0,0287	-0,0331	-0,0085	-0,0236	-0,0281	0,0050	-0,0104	0,0370	0,0087	0,0247
X2 (Total Liabilities/Total Assets)	0,8647	0,9113	0,9113	0,9213	0,9490	0,9240	0,9077	0,8561	0,8672	0,8719
X3 (Current Assets/Current Liabilities)	1,2405	1,1387	1,1445	1,0878	0,6156	1,1246	0,8638	0,9141	1,1691	1,3401
ZMIJEWSKI X-SCORE	0,7090	0,9930	0,8825	1,0069	1,1827	0,8933	0,8691	0,3622	0,5545	0,5091
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	7,1176	7,1173	7,0914	7,0470	7,1843	7,0866	7,0719	6,9859	7,0090	7,0050
B (Total Liabilities/Total Assets)	0,8647	0,9113	0,9113	0,9213	0,9490	0,9240	0,9077	0,8561	0,8672	0,8719
C (Working Capital/Total Assets)	0,1153	0,0722	0,0682	0,0382	-0,2213	0,0561	-0,0737	-0,0460	0,0764	0,1578
D (Current Liabilities/Current Assets)	0,8061	0,8782	0,8737	0,9192	1,6244	0,8892	1,1576	1,0940	0,8553	0,7462
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,0287	-0,0331	-0,0085	-0,0236	-0,0281	0,0050	-0,0104	0,0370	0,0087	0,0247
G (Operating Cash Flows/Total Liabilities)	-0,0140	-0,0182	-0,0287	-0,0189	0,0683	-0,0625	0,0459	-0,0157	0,0588	-0,0343
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,0373	-0,0685	0,6072	-0,4274	-0,2423	1,0000	-1,0000	1,0000	-0,5861	0,4904
OHLSON O-SCORE	0,9674	1,3888	1,2993	1,6956	1,9859	1,2211	2,2147	0,8525	1,4743	0,9510
OHLSON P-PROBABILITY	72,46%	80,04%	78,57%	84,50%	87,93%	77,23%	90,16%	70,11%	81,37%	72,13%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,3480	0,4147	0,5437	0,4822	0,3753	0,3821	0,4950	0,3741	0,3771	0,5297
Net Earnings/Total Assets	-0,0287	-0,0331	-0,0085	-0,0236	-0,0281	0,0050	-0,0104	0,0370	0,0087	0,0247
EBITDA/Total Assets	0,0202	0,0382	0,0403	0,0442	0,0378	0,0515	0,0426	0,0541	0,0505	0,0856
Backlog/Total Assets	1,2204	1,3027	0,9936	0,8957	0,8471	0,8258	1,1559	1,7288	2,5334	2,3512
Current Assets/Total Assets	0,5948	0,5926	0,5399	0,4730	0,3545	0,5058	0,4673	0,4897	0,5282	0,6216
Non-Current Assets/Total Assets	0,4052	0,4074	0,4601	0,5270	0,6455	0,4942	0,5327	0,5103	0,4718	0,3784
Fixed Assets/Total Assets	0,0753	0,0725	0,0902	0,1077	0,0673	0,1018	0,0405	0,0387	0,0351	0,0422
Current Liabilities/Total Liabilities	0,5545	0,5711	0,5176	0,4720	0,6068	0,4867	0,5959	0,6257	0,5210	0,5320
Non-Current Liabilities/Total Liabilities	0,4455	0,4289	0,4824	0,5280	0,3932	0,5133	0,4041	0,3743	0,4790	0,4680
Short-term Bank Debt/Total Bank Debt	0,2915	0,2649	0,2043	0,2011	0,1293	0,1725	0,2430	0,2544	0,2405	0,2519
Long-term Bank Debt/Total Bank Debt	0,7085	0,7351	0,7957	0,7989	0,8707	0,8275	0,7570	0,7456	0,7595	0,7481
Total Bank Debt/Total Assets	0,4513	0,4383	0,4791	0,5333	0,3548	0,4601	0,3697	0,2852	0,2157	0,2287

Table C-14: Financial Indicator – Variable Calculation of J&P ΑΒΑΞ Α.Ε.

INTPAKAT A.E.										
FINANCIAL POSITION STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL ASSETS	296.076.457,00 €	287.887.566,00 €	328.372.668,00 €	353.529.314,00 €	314.869.851,00 €	321.362.058,00 €	365.608.001,00 €	425.797.651,00 €	1.427.203.066,00 €	1.512.012.199,00 €
Non-Current Assets	93.035.070,00 €	116.564.496,00 €	140.685.107,00 €	67.323.214,00 €	98.833.138,00 €	117.313.861,00 €	165.747.998,00 €	222.718.631,00 €	412.339.120,00 €	401.418.852,00 €
Fixed Assets	64.382.723,00 €	59.985.582,00 €	64.120.056,00 €	32.844.148,00 €	29.452.109,00 €	41.931.685,00 €	58.302.373,00 €	109.372.698,00 €	209.606.889,00 €	180.522.611,00 €
Other Non-Current Assets	28.652.347,00 €	56.578.914,00 €	76.565.051,00 €	34.479.066,00 €	69.381.029,00 €	75.382.176,00 €	107.445.625,00 €	113.345.933,00 €	202.732.231,00 €	220.896.241,00 €
Current Assets	203.041.387,00 €	171.323.070,00 €	187.687.561,00 €	286.206.100,00 €	216.036.713,00 €	204.048.197,00 €	199.860.003,00 €	203.079.020,00 €	1.014.863.946,00 €	1.110.593.347,00 €
Inventory	13.743.597,00 €	14.438.308,00 €	14.527.771,00 €	13.633.692,00 €	15.905.696,00 €	12.799.001,00 €	9.388.412,00 €	10.172.635,00 €	28.899.286,00 €	35.428.491,00 €
Accounts Receivables	157.973.039,00 €	142.844.812,00 €	131.391.070,00 €	261.070.135,00 €	191.311.406,00 €	178.750.183,00 €	174.947.077,00 €	167.546.874,00 €	860.802.538,00 €	968.610.250,00 €
Cash and Cash Equivalents	31.324.751,00 €	14.039.950,00 €	41.768.720,00 €	11.502.273,00 €	8.819.611,00 €	12.499.013,00 €	15.524.514,00 €	25.359.511,00 €	125.162.122,00 €	106.554.606,00 €
TOTAL EQUITY	61.223.512,00 €	49.926.538,00 €	64.347.231,00 €	68.242.597,00 €	69.181.479,00 €	52.740.059,00 €	41.777.062,00 €	60.308.560,00 €	161.610.397,00 €	173.007.515,00 €
Stakeholders' Equity	65.573.476,00 €	65.573.476,00 €	45.676.000,00 €	45.665.769,00 €	45.922.474,00 €	73.082.884,00 €	124.627.841,00 €	159.528.004,00 €	166.563.239,00 €	166.563.239,00 €
Reserves	17.224.987,00 €	16.524.184,00 €	55.895.116,00 €	40.703.984,00 €	41.158.839,00 €	36.912.636,00 €	38.306.790,00 €	29.540.775,00 €	24.935.933,00 €	23.253.371,00 €
Accumulated Retained Earnings	-21.574.951,00 €	-32.171.122,00 €	-37.223.885,00 €	-18.127.156,00 €	-17.643.129,00 €	-30.095.051,00 €	-69.612.612,00 €	-93.860.056,00 €	-22.853.540,00 €	-16.809.095,00 €
TOTAL LIABILITIES	234.852.946,00 €	237.961.026,00 €	264.025.439,00 €	285.286.718,00 €	245.688.372,00 €	268.621.999,00 €	323.830.939,00 €	365.489.091,00 €	1.265.696.669,00 €	1.339.004.684,00 €
Non-Current Liabilities (w/o Bank Debt)	54.556,00 €	799.100,00 €	25.208.510,00 €	6.179.499,00 €	20.912.970,00 €	27.436.624,00 €	39.069.830,00 €	44.177.454,00 €	200.766.733,00 €	201.423.758,00 €
Long-term Provisions	1.144.048,00 €	1.369.180,00 €	1.427.794,00 €	1.159.899,00 €	1.064.159,00 €	626.862,00 €	800.673,00 €	583.541,00 €	3.217.185,00 €	3.235.061,00 €
Long-term Bank Debt (1 to 5 years)	44.837.810,00 €	54.989.913,00 €	67.429.191,00 €	24.898.081,00 €	10.700.000,00 €	21.956.378,00 €	71.252.731,00 €	71.439.769,00 €	57.151.519,00 €	12.442.375,00 €
Total Non-Current Liabilities	46.036.414,00 €	57.158.193,00 €	94.065.495,00 €	32.237.479,00 €	32.677.129,00 €	50.019.864,00 €	111.123.234,00 €	116.200.764,00 €	261.135.437,00 €	217.101.194,00 €
Current Liabilities (w/o Bank Debt)	129.202.724,00 €	136.777.416,00 €	130.813.590,00 €	197.701.382,00 €	143.338.722,00 €	151.852.810,00 €	142.880.198,00 €	167.830.295,00 €	813.308.754,00 €	883.153.405,00 €
Short-term Bank Debt (up to 1 year)	59.613.808,00 €	44.025.417,00 €	39.146.354,00 €	55.347.857,00 €	69.672.521,00 €	66.749.325,00 €	69.827.507,00 €	81.458.032,00 €	191.252.478,00 €	238.750.085,00 €
Total Current Liabilities	188.816.532,00 €	180.802.833,00 €	169.959.944,00 €	253.049.239,00 €	213.011.243,00 €	218.602.135,00 €	212.707.705,00 €	249.288.327,00 €	1.004.561.232,00 €	1.121.903.490,00 €
TOTAL EQUITY AND LIABILITIES	296.076.458,00 €	287.887.564,00 €	328.372.670,00 €	353.529.315,00 €	314.869.851,00 €	321.362.058,00 €	365.608.001,00 €	425.797.651,00 €	1.427.203.066,00 €	1.512.012.199,00 €
Total Bank Debt	104.451.618,00 €	99.015.330,00 €	106.575.545,00 €	80.245.938,00 €	80.372.521,00 €	88.705.703,00 €	141.080.238,00 €	152.897.801,00 €	248.403.997,00 €	251.192.460,00 €

INCOME STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover	147.594.551,00 €	182.383.706,00 €	147.167.994,00 €	232.143.007,00 €	286.010.483,00 €	174.506.165,00 €	214.840.059,00 €	225.419.868,00 €	412.106.912,00 €	1.254.923.600,00 €
Production Cost	-125.663.074,00 €	-156.669.800,00 €	-126.487.422,00 €	-210.194.358,00 €	-260.491.574,00 €	-156.834.914,00 €	-199.259.669,00 €	-207.188.297,00 €	-371.722.119,00 €	-1.131.286.077,00 €
Gross Income	21.931.477,00 €	25.713.906,00 €	20.680.572,00 €	21.948.649,00 €	25.518.909,00 €	17.671.251,00 €	15.580.390,00 €	18.231.571,00 €	40.384.793,00 €	123.637.525,00 €
Other Income	2.006.284,00 €	1.793.270,00 €	1.740.725,00 €	1.228.282,00 €	2.079.311,00 €	1.336.488,00 €	2.245.787,00 €	2.459.906,00 €	35.024.601,00 €	8.558.511,00 €
Operational Cost	-14.547.025,00 €	-15.297.368,00 €	-14.785.093,00 €	-14.748.419,00 €	-17.019.198,00 €	-21.497.672,00 €	-26.013.669,00 €	-28.128.567,00 €	-42.137.792,00 €	-77.577.459,00 €
Other Costs	-5.419.868,00 €	-5.840.096,00 €	-1.163.123,00 €	-328.975,00 €	1.735.266,00 €	-476.334,00 €	-3.695.957,00 €	-4.893.902,00 €	-1.266.542,00 €	6.524.791,00 €
Operation Results	3.970.868,00 €	6.369.712,00 €	6.473.081,00 €	8.099.537,00 €	12.314.288,00 €	-2.966.267,00 €	-11.883.449,00 €	-12.330.992,00 €	32.005.060,00 €	61.143.368,00 €
Financial Results	-8.381.696,00 €	-10.221.310,00 €	-9.915.338,00 €	-7.531.702,00 €	-10.049.218,00 €	-9.920.785,00 €	-11.338.946,00 €	-12.233.389,00 €	-23.547.317,00 €	-46.931.136,00 €
Earnings before Tax	-4.410.828,00 €	-3.851.598,00 €	-3.442.257,00 €	567.835,00 €	2.265.070,00 €	-12.887.052,00 €	-23.222.395,00 €	-24.564.381,00 €	8.457.743,00 €	14.212.232,00 €
Tax	-1.533.211,00 €	-2.540.618,00 €	-1.035.167,00 €	-3.385.213,00 €	-1.689.531,00 €	461.025,00 €	639.378,00 €	927.368,00 €	-5.526.823,00 €	-10.523.412,00 €
Net Income	-5.944.039,00 €	-6.392.216,00 €	-4.477.424,00 €	-2.817.378,00 €	575.539,00 €	-12.426.027,00 €	-22.583.017,00 €	-23.637.013,00 €	2.930.920,00 €	3.688.820,00 €
Actuarial Gains / Losses	4.640.074,00 €	-351.159,00 €	-3.303.955,00 €	12.711.377,00 €	776.390,00 €	-4.387.449,00 €	-4.815.173,00 €	-8.753.008,00 €	-4.740.204,00 €	-2.379.798,00 €
Total Net Income	-1.303.965,00 €	-6.743.375,00 €	-7.781.379,00 €	9.893.999,00 €	1.351.929,00 €	-16.813.476,00 €	-27.398.190,00 €	-32.390.021,00 €	-1.809.284,00 €	1.309.022,00 €

CASH FLOW STATEMENT										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operation Cash Flows	-12.949.822,00 €	8.247.173,00 €	28.466.704,00 €	-38.444.455,00 €	815.443,00 €	11.617.685,00 €	-22.665.348,00 €	14.699.325,00 €	100.209.464,00 €	42.559.425,00 €
Investment Cash Flows	-11.122.221,00 €	-16.103.655,00 €	-19.250.594,00 €	-7.944.446,00 €	-3.204.278,00 €	-8.408.457,00 €	-20.347.085,00 €	-67.598.955,00 €	-123.003.640,00 €	27.816.688,00 €
Financing Cash Flows	29.649.072,00 €	-9.428.320,00 €	18.512.660,00 €	16.122.454,00 €	-293.826,00 €	470.174,00 €	46.037.934,00 €	62.734.627,00 €	125.057.540,00 €	-88.983.629,00 €
Net increase / decrease in cash and cash equivalents	5.577.029,00 €	-17.284.802,00 €	27.728.770,00 €	-30.266.447,00 €	-2.682.661,00 €	3.679.402,00 €	3.025.501,00 €	9.834.997,00 €	102.263.364,00 €	-18.607.516,00 €
Acquisitions	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €	-2.460.753,00 €	0,00 €
Opening cash and cash equivalents	25.747.722,00 €	31.324.751,00 €	14.039.950,00 €	41.768.720,00 €	11.502.273,00 €	8.819.611,00 €	12.499.013,00 €	15.524.514,00 €	25.359.511,00 €	125.162.122,00 €
Closing cash and cash equivalents	31.324.751,00 €	14.039.949,00 €	41.768.720,00 €	11.502.273,00 €	8.819.612,00 €	12.499.013,00 €	15.524.514,00 €	25.359.511,00 €	125.162.122,00 €	106.554.606,00 €

ADDITIONAL INFORMATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBITDA	12.676.430,00 €	12.382.985,00 €	9.940.313,00 €	9.900.847,00 €	15.743.055,00 €	1.642.222,00 €	-5.625.380,00 €	-4.410.120,00 €	13.856.157,00 €	83.878.111,00 €
Backlog	276.000.000,00 €	173.000.000,00 €	476.000.000,00 €	440.000.000,00 €	375.400.000,00 €	380.900.000,00 €	556.400.000,00 €	799.400.000,00 €	2.300.000.000,00 €	3.440.000.000,00 €
Working Capital	14.224.855,00 €	-9.479.763,00 €	17.727.617,00 €	33.156.861,00 €	3.025.470,00 €	-14.553.938,00 €	-12.847.702,00 €	-46.209.307,00 €	10.302.714,00 €	-11.310.143,00 €
Market Equity Value	8.100.000,00 €	9.500.000,00 €	32.000.000,00 €	30.000.000,00 €	49.000.000,00 €	46.000.000,00 €	154.000.000,00 €	122.000.000,00 €	750.000.000,00 €	810.000.000,00 €

Table C-15: Financial Statement Information of INTPAKAT A.E.

INTPAKAT A.E.										
FINANCIAL RATIO CALCULATION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Current Ratio	1,0753	0,9476	1,1043	1,1310	1,0142	0,9334	0,9396	0,8146	1,0103	0,9899
Quick Ratio	1,0025	0,8677	1,0188	1,0772	0,9395	0,8749	0,8955	0,7738	0,9815	0,9583
Cash Ratio	0,1659	0,0777	0,2458	0,0455	0,0414	0,0572	0,0730	0,1017	0,1246	0,0950
Inventory Turnover Ratio	9,1434	10,8510	8,7066	15,4173	16,3773	12,2537	21,2240	20,3672	12,8627	31,9315
Average Selling Period	39,9195	33,6375	41,9222	23,6747	22,2870	29,7870	17,1975	17,9210	28,3767	11,4307
Working Capital Turnover Ratio	10,3758	-19,2393	8,3016	7,0014	94,5342	-11,9903	-16,7221	-4,8782	39,9998	-110,9556
Asset Turnover Ratio	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
Fixed Asset Turnover Ratio	2,2925	3,0405	2,2952	7,0680	9,7110	4,1617	3,6849	2,0610	1,9661	6,9516
Equity Turnover Ratio	2,4107	3,6530	2,2871	3,4017	4,1342	3,3088	5,1425	3,7378	2,5500	7,2536
Gross Profit Margin	0,1486	0,1410	0,1405	0,0945	0,0892	0,1013	0,0725	0,0809	0,0980	0,0985
Net Profit Margin	-0,0088	-0,0370	-0,0529	0,0426	0,0047	-0,0963	-0,1275	-0,1437	-0,0044	0,0010
EBITDA Margin	0,0859	0,0679	0,0675	0,0426	0,0550	0,0094	-0,0262	-0,0196	0,0336	0,0668
Return on Assets (ROA)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
Return on Equity (ROE)	-0,0213	-0,1351	-0,1209	0,1450	0,0195	-0,3188	-0,6558	-0,5371	-0,0112	0,0076
Debt to Equity	3,8360	4,7662	4,1031	4,1805	3,5514	5,0933	7,7514	6,0603	7,8318	7,7396
Debt Ratio	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
Total Liabilities to Current Assets Ratio	1,1567	1,3890	1,4067	0,9968	1,1373	1,3165	1,6203	1,7997	1,2472	1,2057
Financial Leverage Ratio	4,8360	5,7662	5,1031	5,1805	4,5514	6,0933	8,7514	7,0603	8,8311	8,7396
Debt Coverage Ratio	-0,0551	0,0347	0,1078	-0,1348	0,0033	0,0432	-0,0700	0,0402	0,0792	0,0318
Financial Autonomy Ratio	0,2068	0,1734	0,1960	0,1930	0,2197	0,1641	0,1143	0,1416	0,1132	0,1144
Cash Flow to Debt Ratio	-0,1240	0,0833	0,2671	-0,4791	0,0101	0,1310	-0,1607	0,0961	0,4034	0,1694
FINANCIAL DISTRESS PREDICTION										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
X1 (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
X2 (Retained Earnings/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
X3 (EBITDA/Total Assets)	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
X4 (Market Equity Value/Total Liabilities)	0,0345	0,0399	0,1212	0,1052	0,1994	0,1712	0,4756	0,3338	0,5926	0,6049
X5 (Sales/Total Assets)	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
ALTMAN Z-SCORE	0,7120	0,7271	0,6524	0,9639	1,2105	0,5350	0,6751	0,4588	0,6832	1,3682
X1 (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
X2 (EBITDA/Total Assets)	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
X3 (EBT/Current Liabilities)	-0,0234	-0,0213	-0,0203	0,0022	0,0106	-0,0590	-0,1092	-0,0985	0,0084	0,0127
X4 (Sales/Total Assets)	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
SPRINGATE S-SCORE	0,3649	0,3375	0,3144	0,4467	0,5337	0,1473	0,0796	0,0032	0,1583	0,5030
X1 (Net Income/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
X2 (Total Liabilities/Total Assets)	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
X3 (Current Assets/Current Liabilities)	1,0753	0,9476	1,1043	1,1310	1,0142	0,9334	0,9396	0,8146	1,0103	0,9899
ZMIJEWSKI X-SCORE	0,1929	0,4676	0,3415	0,1250	0,0799	0,6508	1,0360	0,8852	0,7101	0,6932
GNP	100,00	99,60	100,30	100,20	100,40	99,20	101,40	111,20	117,80	121,60
A [log(Total Assets/GNP)]	6,4714	6,4610	6,5151	6,5476	6,4964	6,5105	6,5570	6,5831	7,0833	7,0946
B (Total Liabilities/Total Assets)	0,7932	0,8266	0,8040	0,8070	0,7803	0,8359	0,8857	0,8584	0,8868	0,8856
C (Working Capital/Total Assets)	0,0480	-0,0329	0,0540	0,0938	0,0096	-0,0453	-0,0351	-0,1085	0,0072	-0,0075
D (Current Liabilities/Current Assets)	0,9299	1,0553	0,9055	0,8842	0,9860	1,0713	1,0643	1,2275	0,9898	1,0102
E (binary, if TL>TA = 1)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
F (Net Income/Total Assets)	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
G (Operating Cash Flows/Total Liabilities)	-0,0551	0,0347	0,1078	-0,1348	0,0033	0,0432	-0,0700	0,0402	0,0792	0,0318
H (binary, if last two years losses = 1)	0,0000	0,0000	1,0000	0,0000	0,0000	1,0000	1,0000	1,0000	1,0000	1,0000
I (change in Net Income)	0,2622	-0,6759	-0,0715	1,0000	-0,7596	-1,0000	-0,2394	-0,0835	0,8942	1,0000
OHLSON O-SCORE	0,8057	1,5059	1,0492	0,4733	1,1815	2,0673	2,1985	1,8599	0,8866	0,9235
OHLSON P-PROBABILITY	69,12%	81,84%	74,06%	61,62%	76,52%	88,77%	90,01%	86,53%	70,82%	71,57%
SECTOR - SPECIFIC VARIABLES										
YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Turnover/Total Assets	0,4985	0,6335	0,4482	0,6566	0,9083	0,5430	0,5876	0,5294	0,2888	0,8300
Net Earnings/Total Assets	-0,0044	-0,0234	-0,0237	0,0280	0,0043	-0,0523	-0,0749	-0,0761	-0,0013	0,0009
EBITDA/Total Assets	0,0428	0,0430	0,0303	0,0280	0,0500	0,0051	-0,0154	-0,0104	0,0097	0,0555
Backlog/Total Assets	0,9322	0,6009	1,4496	1,2446	1,1922	1,1853	1,5218	1,8774	1,6115	2,2751
Current Assets/Total Assets	0,6858	0,5951	0,5716	0,8096	0,6861	0,6349	0,5467	0,4769	0,7111	0,7345
Non-Current Assets/Total Assets	0,3142	0,4049	0,4284	0,1904	0,3139	0,3651	0,4533	0,5231	0,2889	0,2655
Fixed Assets/Total Assets	0,2175	0,2084	0,1953	0,0929	0,0935	0,1305	0,1595	0,2569	0,1469	0,1194
Current Liabilities/Total Liabilities	0,8040	0,7598	0,6437	0,8870	0,8670	0,8138	0,6568	0,6821	0,7937	0,8379
Non-Current Liabilities/Total Liabilities	0,1960	0,2402	0,3563	0,1130	0,1330	0,1862	0,3432	0,3179	0,2063	0,1621
Short-term Bank Debt/Total Bank Debt	0,5707	0,4446	0,3673	0,6897	0,8669	0,7525	0,4949	0,5328	0,7699	0,9505
Long-term Bank Debt/Total Bank Debt	0,4293	0,5554	0,6327	0,3103	0,1331	0,2475	0,5051	0,4672	0,2301	0,0495
Total Bank Debt/Total Assets	0,3528	0,3439	0,3246	0,2270	0,2553	0,2760	0,3859	0,3591	0,1740	0,1661

Table C-16: Financial Indicator – Variable Calculation of INTPAKAT A.E.

Author’s Statement:

I hereby declare that, in accordance with article 8 of Law 1599/1986 and article 2.4.6 par. 3 of Law 1256/1982, this thesis/dissertation is solely a product of personal work and does not infringe any intellectual property rights of third parties and is not the product of a partial or total plagiarism, and the sources used are strictly limited to the bibliographic references.